Commander's Guide to Environmental Management

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This Guide is intended to serve as a "primer" on the environment to meet the environmental information needs of Commanders, as well as other staff officers and personnel who find themselves confronted with environmental issues.

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Environmental Management

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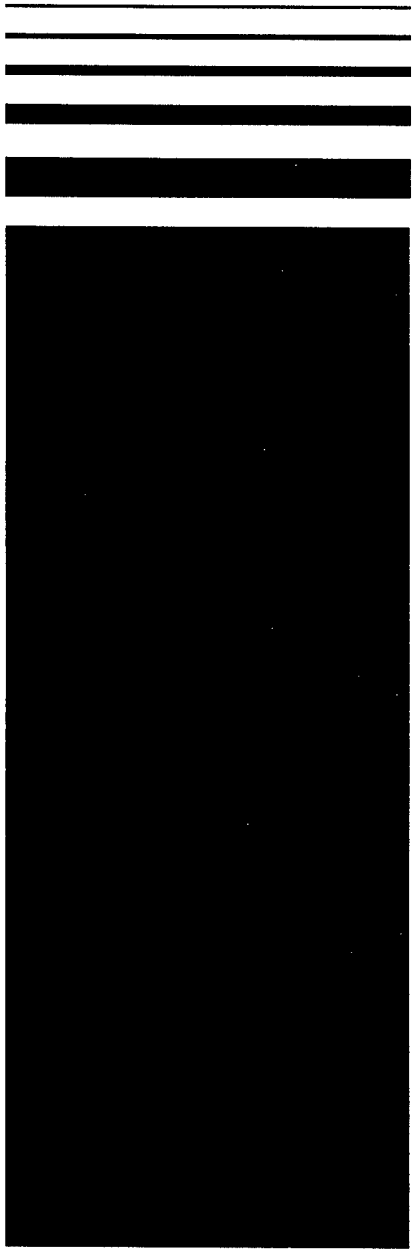

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About this Guide....

The Commander's Guide to Environmental Management is designed to meet the environmental information needs of commanders but is also a useful tool for other staff officers and personnel who will very likely find themselves confronted with one or more environmental issues. Intended as a "primer" on the environment, this Guide is structured around questions commanders need answered and issues they need to be aware of. The information provided offers a level of detail needed for basic knowledge of key environmental issues. This basic knowledge will better enable commanders to work with their environmental personnel in developing and maintaining the most effective environmental program possible.

Contents

What is Environmental Management and Why is it Important?

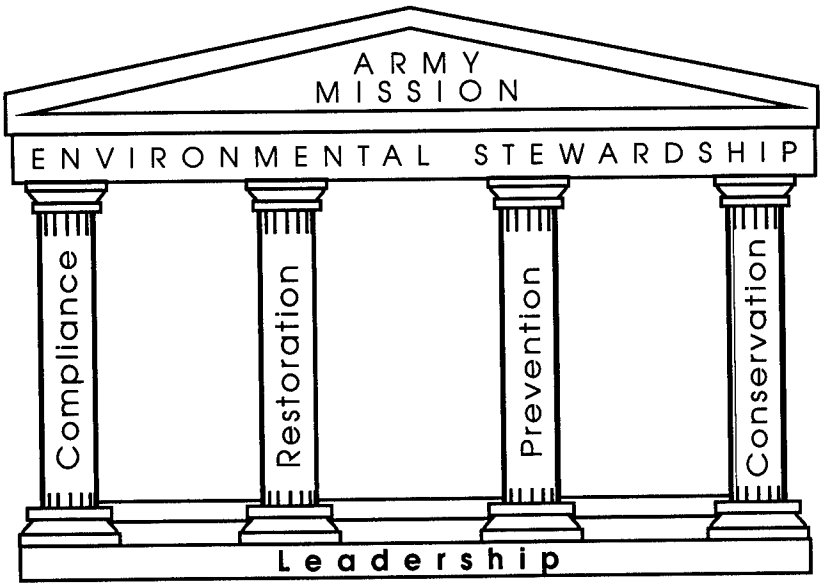
Introduction...

While your command extends across every aspect of the mission, there is one area of responsibility that impacts virtually every action and operation: **the environment**. Whether you are commander of a line unit on the "Frontier of Freedom," producing the finest equipment for the front line soldier, or developing defense systems for the 21st Century, environmental responsibilities are integral to your command.

Environmental Management in the Army is the means of conserving, protecting and restoring our natural and cultural resources while accomplishing the military mission. Proper environmental management and coordination at the installation are not only necessary to comply with Federal, state, local and host nation regulations, they also benefit your overall mission by preventing time delays or operational shutdowns and improving public relations.

Although this Guide is geared towards installations and activities in the continental United States and its Territories, much of the information is still useful to commanders and Army personnel outside the continental United States. In most cases the OCONUS commands have programs which parallel the ones described in this document and implement the spirit of environmental protection and stewardship. OCONUS commanders should consult with their installation environmental staff to become familiar with these unique OCONUS policies.

The Army's Environmental Strategy into the 21st century is to lead the nation in protecting our environment and conserving natural resources for present and future generations as an integral part of our mission.



The Army's Environmental strategy is illustrated in a model of a building with a foundation and pillars supporting the overall vision of environmental stewardship. The strategy is founded on a bedrock of shared national values which support the foundation. Across the foundation is the Army's tradition of leadership. This integrates the foundation blocks and together with the foundation provides a sound footing for the four pillars:

- **Compliance:** attain and sustain compliance at all Army installations;
- **Restoration:** cleanup contamination as quickly as possible;
- **Prevention:** prevent or reduce pollution at its source to lessen future problems;
- **Conservation:** conserve and preserve natural and cultural resources within the Army's control for future generations.

The **compliance pillar** includes all activities that ensure that current operations at Army installations meet federal, state, local and applicable host nation environmental requirements. These requirements include laws and regulations in the areas of wastewater discharge, endangered species, noise abatement, wetlands, air quality attainment, historic properties, and solid and hazardous waste management.

The **restoration pillar** includes the Installation Restoration Program (IRP), the Formerly Used Defense Sites (FUDS) Program, and the Base Realignment and Closure (BRAC) Program. These programs identify, assess and remediate hazardous wastes from previous activities at Army installations. The IRP remediates hazardous waste at active Army installations. The FUDS Program remediates waste at formerly used defense sites. The BRAC Program remediates hazardous waste at installations closing as mandated by law.

The **prevention pillar** includes eliminating pollution to the greatest possible extent. This includes reducing hazardous materials use and hazardous waste generation. Prevention can be achieved by using less toxic materials or environmentally acceptable operations, increasing efficiency, and preventing accidents which result in damage to the environment.

The **conservation pillar** includes conservation and preservation of natural and cultural resources. Conservation focuses on responsibly managing Army lands to ensure long-term productivity of the natural resources. Preservation focuses on natural and cultural resource protection, often with only limited use by the Army community. Preservation is essential for ensuring the future integrity of valuable Army resources such as wetlands, endangered species habitat and historic and cultural properties.

You need to know...

Your installation's environmental management program should consist of four general components:

Environmental Compliance — those aspects that affect current operations, such as wastewater discharge, sewage treatment, noise abatement, endangered species, wetlands, air quality attainment, or hazardous waste/materials management.

Environmental Restoration — those aspects that relate to remediation of contamination caused by past waste disposal practices. Remediation is performed under the Defense Environmental Restoration Program (DERP), which includes the Installation Restoration Program (IRP), the Formerly Used Defense Sites (FUDS) Program and the Base Realignment and Closure (BRAC) Program.

Natural and Cultural Resources Management — those aspects that pertain to the management, conservation, and restoration of the land itself and those renewable natural resources such as forests, fish and wildlife as well as any historic or archeological resources.

Environmental Considerations and Documentation — those aspects of the environmental program that consider the possible environmental impacts of future operations and activities through pre-planning. Documentation of these considerations and development of methods to avoid or reduce as many adverse effects as possible are required under the National Environmental Policy Act (NEPA) and AR 200-2.

These components, however, are not always discrete elements of your environmental program. There will be many overlapping decisions and contingency plans. Environmental management is much more than a one-man job. It is necessary to prepare yourself with proper planning, training, and adequate staffing and resources. Work together with your staff to promote the concept that the environment is **everyone's** responsibility; this is the key to successful environmental management. Coordination and cooperation with other government and private agencies will normally make the task easier and is often a requirement.

Keep these things in mind...

- As commander, **you** are ultimately responsible for compliance with all applicable environmental laws and regulations within your command.
- The command emphasis you place on your environmental program will determine its overall success.
- The consequences of not complying can be severe, with penalties that may be civilly or criminally imposed. Other consequences could be a delay or halt in the mission and negative public relations.

- Your best tool for achieving and maintaining compliance is to organize and fully use an Environmental Management Team from among your installation staff.

Moving on...

Accomplishing the mission always has been and always will be the top priority. However, successfully blending the military mission with the environmental challenge is now equally important.

What is the Army's Environmental Management Policy?

The Army Environmental Management Policy*, as stated below, has been endorsed by the Army Chief of Staff and the Secretary of the Army.

"Protection of precious environmental resources is the duty of every member of the Total Army. Charged with the stewardship of over 25 million acres of land, we must never lose sight of our responsibility to preserve and protect the resources that have been entrusted to our care....

The guiding principle is that work and actions must be environmentally sustainable, meeting current needs without compromising the integrity of the environment for future generations. As a basis to our Environmental Management Policy we must:

- Integrate environmental consideration into all of our activities.
- Allocate resources and training to protect our environment.
- Ensure that installation operations are environmentally acceptable and enhance the life of military and civilian members.
- Minimize generation of waste.
- Clean up sites of past contamination.

All of us, Total Army members and leaders, military and civilian, must ensure that we are well aware of our responsibilities as we set the standard for the Department of Defense and the Nation in meeting the environmental challenges of the 1990s and beyond."

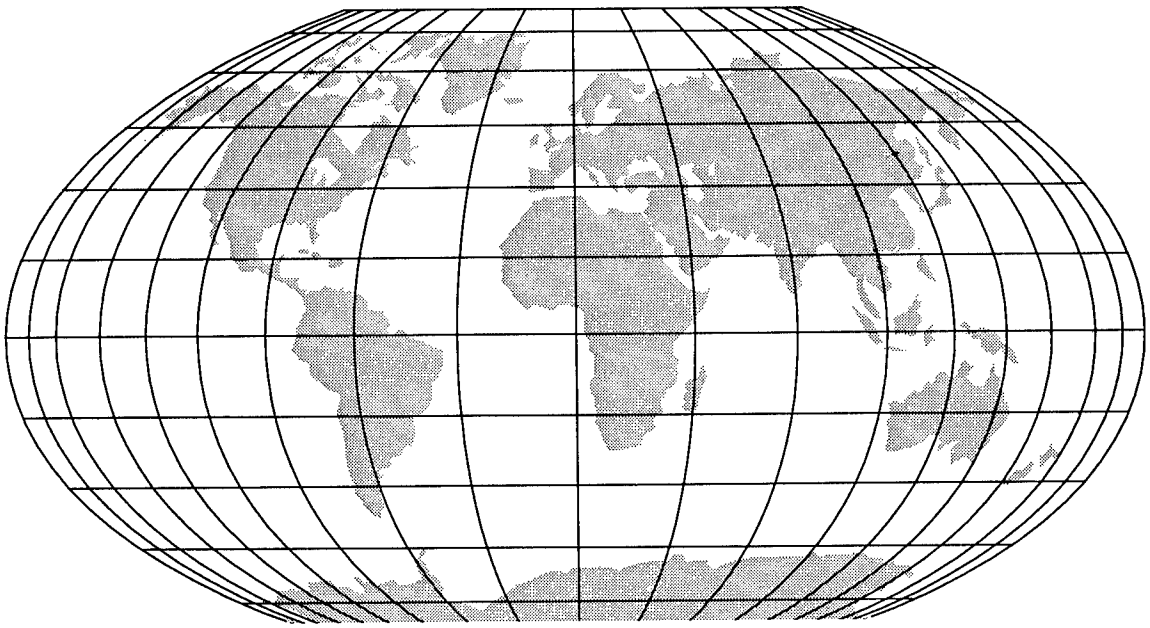
* as taken from the Department of the Army Environmental Management Policy Memorandum dated 17 July 1990.

What About OCONUS Installations?

Policy for environmental compliance at installations located in foreign nations is provided through "Final Governing Standards" developed by DoD appointed Environmental Executive Agents. The Executive Agent drafts the Final Governing Standards by comparing host nation environmental criteria to the criteria contained in the DoD Overseas Environmental Baseline Guidance Document (OEBGD). This comparison includes a review of applicable host nation laws, base rights or Status Forces Agreements (SOFAs), international agreements, and current practices. Before issuing the Final Governing Standards, the Executive Agent presents them to the State Department for review and comment. Unless inconsistent with applicable host nation law, base rights and/or Status of Forces Agreements (SOFAs), or other international agreement, or practices established pursuant to such agreements, the baseline guidance shall be applied by the DOD Components stationed in foreign countries when host nation environmental standards do not exist, are not applicable, or provide less protection to human health and the natural environment than the baseline guidance.

Three major regulatory documents that apply to or specifically address OCONUS issues are listed below:

- Department of Defense Directive 4120.14, "Environmental Pollution, Prevention, Control and Abatement;"
- Department of the Army Regulation 200-1, "Environmental Protection and Enhancement;"
- Department of the Army Regulation 200-2, "Environmental Effects of Army Actions;" and



- Department of Defense Directive 6050.16, DoD Policy for Establishing and Implementing Standards at Overseas Installations.

If you are an OCONUS Commander or face the possibility of becoming one, it is important to familiarize yourself with the specific regulations that apply to the host country and specific locality within that country.

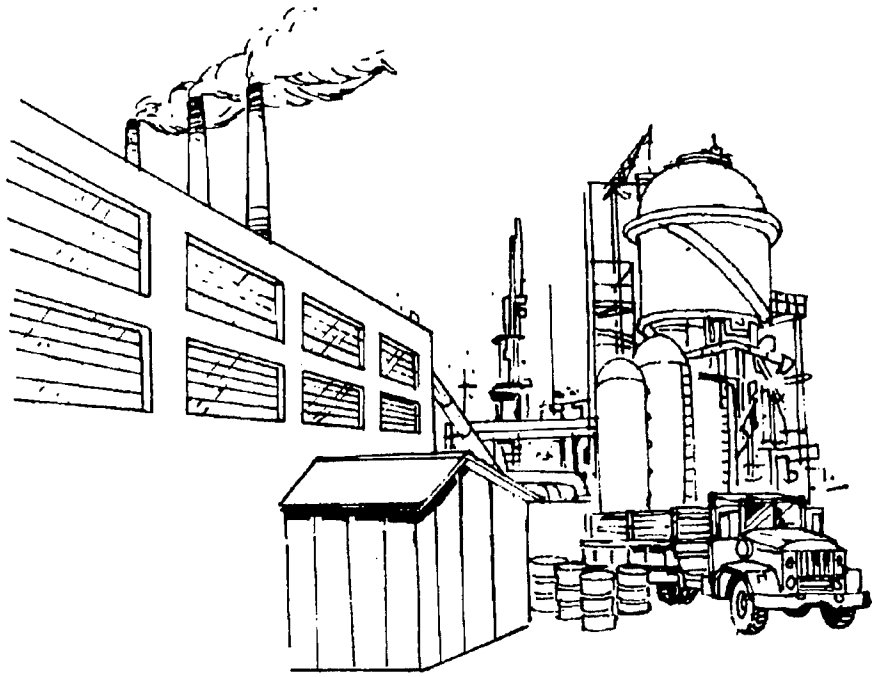
What is Environmental Compliance?

Environmental Compliance is an installation's status with respect to the myriad of Federal, state, local and host nation environmental regulations for on-going operations. Your compliance status can, and often does, vary according to the type of regulation. For example, your installation could be in compliance with water quality regulations but be out of compliance with hazardous waste regulations by not having turned in a required environmental report on time.

Total, continuous environmental compliance is an illusive goal. Only a regulatory agency [usually the state and the U.S. Environmental Protection Agency (EPA) or the U.S. Fish and Wildlife Service for endangered species] can determine the installation's legal regulatory compliance status. This is normally done through inspections. However, many of the environmental regulations are designed to be "self regulating". These regulations require you to monitor your program and to notify the regulatory agency when you suspect that you are not "in compliance."

The national environmental regulatory enforcement strategy for pollution control is documented in the EPA Federal Facilities Compliance Strategy, November 1988. This book is also known as the EPA Yellow Book.

To assist Army commanders and their staffs to achieve and maintain compliance with Federal, state, local and host nation environmental regulations, and to also foster a sense of stewardship as an extension of compliance, the Army Environmental Compliance Achievement Program



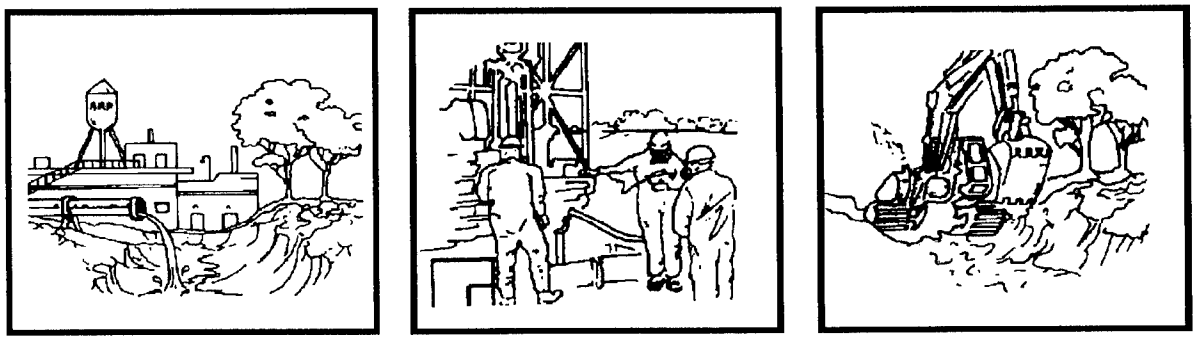
(ECAP) was established. ECAP is an umbrella program that integrates the five basic steps you need to take to achieve and maintain environmental compliance: training; planning and programming; resourcing; assessing; and correcting deficiencies in the most expedient, cost-effective manner with minimum or no impact on the military mission of the Army. ECAP is applicable to all Army installations on a worldwide basis and covers Army environmental programs that focus on ongoing and future operations (as compared to DERP which focuses on past Army operations).

Environmental compliance is expensive, but it's a responsibility you must accept as a cost of doing business. Since there is no separate funding account for environmental compliance, you must plan, budget and pay for your environmental program as an operational expense. Later in this Guide, requirements for budgeting are outlined.

What is Environmental Restoration?

The Defense Environmental Restoration Program (DERP), established in 1984, is the comprehensive DoD program to identify and remediate past hazardous waste sites at its installations and formerly used properties. The Installation Restoration Program (IRP) is the major element of the DERP and is DoD's program for meeting its responsibilities under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), the Superfund Amendments and Reauthorization Act of 1986 (SARA), and Executive Order 12580. The IRP is funded by a special appropriation called the Defense Environmental Restoration Account (DERA). The IRP process includes: preliminary assessment (PA); site inspection (SI); remedial investigation and feasibility study (RI/FS); and remedial design and remedial action (RD/RA).

The IRP differs from the Environmental Compliance program in that it focuses on past operations (generally prior to 1980). Additional information on the IRP is provided in the Supplementary Reading section.



INSTALLATION RESTORATION

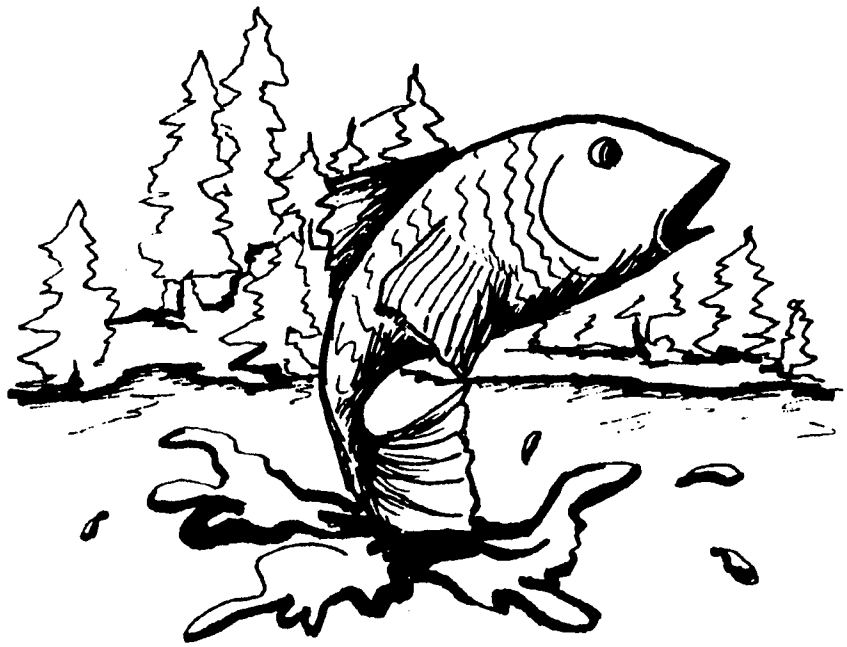
What is Natural and Cultural Resources Management?

Conservation refers to the wise use, improvement and protection of natural and cultural resources according to principles that provide optimum public benefit and support of the military mission for present and future generations. This is the basis for Natural and Cultural Resources Management.

At the installation level, it is necessary for you to have and maintain Natural and Cultural Resources Management Plans. These plans will help you achieve optimum use and enjoyment of these resources while maintaining the environmental qualities, ecological relationships, preservation of historic and archeological resources, and quality of life programs separately. But each component should exhibit compatible methodologies and goals. Some of these more specific programs include the following:

- Forest Management;
- Fish and Wildlife Management (including endangered species);
- Historic and Archaeological Resources Management;
- Land Management; (to include training lands, wetlands, agricultural)
- Pest Management (as an area that affects the other programs).

These programs and other programs (wetlands, threatened and endangered species) are specifically addressed in the Supplementary Reading section.



What is Environmental Consideration and Documentation?

One of the provisions of the National Environmental Protection Act (NEPA) requires that anytime Federal money is spent on a project, operation or activity, there must be some kind of environmental consideration given, these considerations are documented, and provision made for public involvement. The extent of the consideration given depends on many things, including the project itself, public involvement and concern, and

any existing or potential environmental impacts.

There are essentially three degrees of environmental consideration — each requiring a specific type of documentation:

Record of Environmental Consideration (REC) — Used most often at the installation level, this brief document describes a proposed action and explains why further environmental analysis is not needed. It is used for projects that are exempt from NEPA requirements, have already been addressed in existing documentation, or are categorically excluded. A list of categorical exclusions (Cxs) (e.g., projects that have been pre-determined to not require more detailed analysis or documentation) are detailed in Chapter 4, Appendix A of AR 200-2, "Environmental Effects of Army Actions". The CX is intended to reduce paperwork and to eliminate unnecessary analysis.

Environmental Assessment (EA) — Required for proposed actions that have potential for adverse impacts on the environment. An EA is conducted to determine the extent of those environmental impacts and

whether or not those impacts are significant. Construction projects may require an EA. When a proposed action will have significant environmental impacts, and especially when there is some foreseen controversy or public concern, an EA will probably not be sufficient. It is wisest at this point to begin with the most detailed analysis and documentation, the Environmental Impact Statement.

Environmental Impact Statement (EIS) — Required to ensure that NEPA policies and goals are incorporated early in the process for extensive projects. The EIS must contain a full, fair, yet concise discussion of all significant environmental impacts relating to a proposed action. An EIS can be a very time consuming and expensive process and is often contracted out.

The format and required information for these documents is discussed in AR 200-2. Other documents such as a Notice of Intent (NOI), a Record of Decision (ROD), and a Finding of No Significant Impact (FNSI) are additional elements of the NEPA process.

Despite its complexity, the purpose of NEPA is not to generate more paperwork; in fact, it has provisions to reduce it. Instead, the NEPA process is intended to help public officials make decisions based on an understanding of environmental consequences and directs them as to the appropriate action.

Consider the NEPA process as a tool that, when begun at the earliest possible time and when the work is limited to only what is necessary (and is done accurately), will provide the most efficient method of protecting, restoring and enhancing the environment while achieving the Army mission.

Read more about NEPA in the Supplementary Reading section.

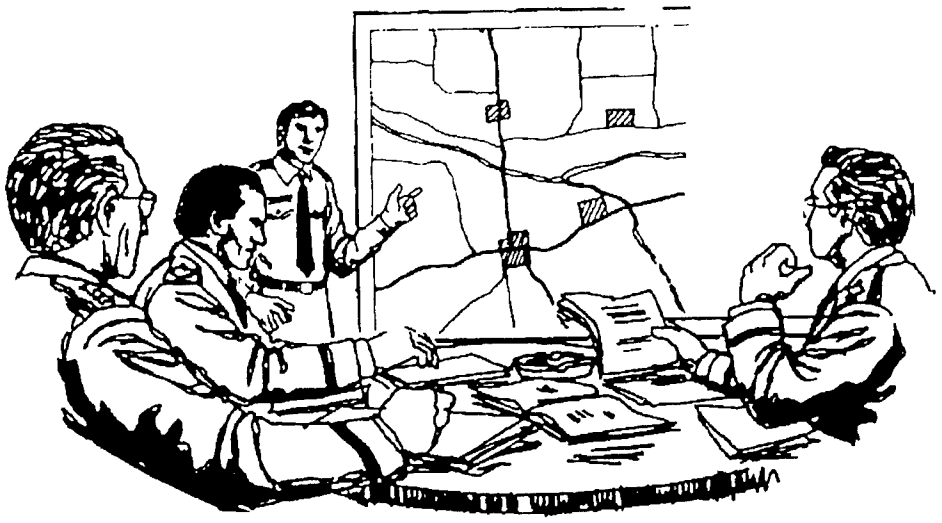
What Has to be Done at My Installation?

As Commander, you must develop a strong, active environmental program at your installation. This includes providing adequate staffing and resources to your environmental office. You must also place the proper emphasis on the environmental program at all levels of your staff. It is essential to remember that the execution and success of your environmental program will require full commitment from all activities on the installation, not just the environmental office.

Your responsibilities for directing the installation environmental program are outlined in ARs 200-1, 200-2, and Major Army Command (MACOM) supplements. You should be aware of these responsibilities.

Here is a checklist of things you should do:

- ✓ Meet with your Environmental Management Team: the environmental coordinator, public affairs officer, legal advisor, safety and occupational health manager, preventive medicine officer, resource manager and land manager. Have them brief you on the environmental program. Questions to ask are provided in the Section, "What Are the Questions I Should Ask My Environmental Management Team?"
- ✓ Establish an Environmental Quality Control Committee (EQCC). Chair it personally and convene it monthly. Ensure that the director of each major staff section and representatives from legal, medical, safety, range management, resource management, logistics, DRMO, public affairs, as well as tenant unit commanders, attend.
- ✓ Get copies of ARs 200-1, 200-2, and supplements. Gain familiarity with them. These documents explain your responsibilities. Also familiarize



yourself with supporting regulations in the 420 series (i.e., ARs 420-40,-47,-74 and -76).

- ✓ Get copies of the EPA Federal Facilities Compliance Strategy, November 1988 (also called the EPA Yellow Book). Read it. The book may be obtained from your environmental coordinator or from your EPA Regional Federal Facilities Coordinator (phone numbers are listed on page 40 in this Guide).
- ✓ Review documentation received from regulatory agencies with the environmental coordinator on a periodic basis to ensure environmental requirements are identified and transmitted to various Army support organizations through the MACOM.
- ✓ Meet with tenant commanders. Seek their support and involvement in the program. Encourage their attendance at and participation in Installation Environmental Quality Review Board meetings.
- ✓ Meet early and often with regulatory officials from the EPA, the U.S. Fish and Wildlife Service (FWS), the state and any local groups or agencies. Develop good working relationships.

File those reports...

An important part of building your installation environmental program is making sure you take care of the numerous regulatory and Army reporting requirements. The frequency of regulatory reports varies depending on the program area (i.e., hazardous substance spills must be reported when they exceed certain quantities, while other reports may be annual). Reporting requirements will also vary from state to state.

Within the Army, there are two principal environmental reports you must provide to higher headquarters. Your MACOM may have additional reporting requirements. The Army reports are the Report Control Symbol (RCS)-1383 Report (reporting requirements in connection with the prevention, control and abatement of environmental pollution and the management of natural and cultural resources) and the Army Compliance Tracking System (ACTS), which provides a snapshot view of the Army's environmental program and its compliance status. Both of these reports are automated.

The 1383 Report is the critical building block for identifying your environmental program requirements to higher headquarters. This is your justification for Schedule 11 budget requests. Due to Fact Reports at different times, the 1383 and Schedule 11 may not match. The 1383 must support the Schedule 11 and the overall submissions. One or both need to be updated, as project lists will go into the President's Budget as justification of requirements. The RCS-1383 report is currently updated twice a year.

The Army Compliance Tracking System (ACTS) report replaces the Defense Environmental Management Information System (DEMIS). The data required are necessary both for reporting to Congress and for management of the Army's environmental program. The ACTS tracks key compliance indicators including inspections, violations, compliance agreements, fines, permits and spills. The ACTS is a management tool for all user levels from the installation (which can use it to submit required reports, track permit dates and requirements, and monitor costs), through the MACOMs on up to Headquarters, Department of the Army (HQDA).

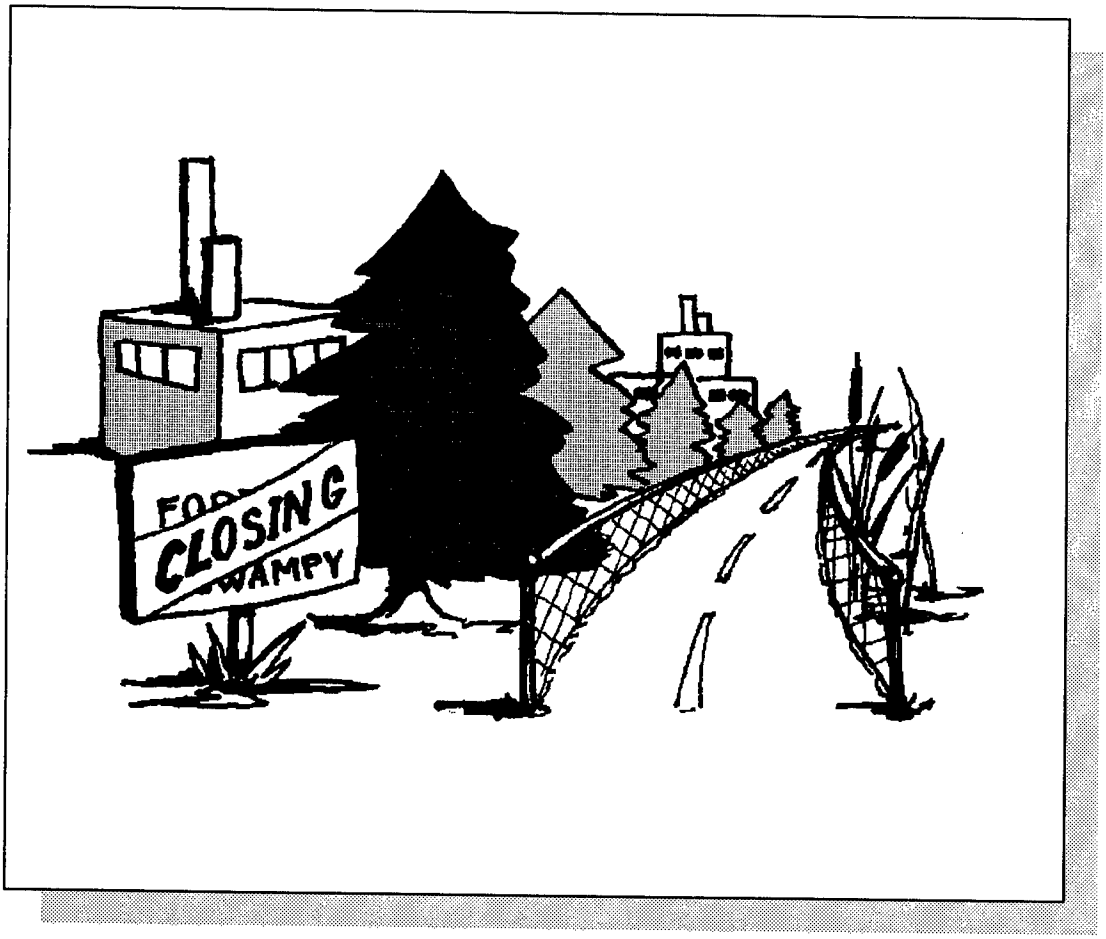
In addition, whenever you receive a Notice of Violation (NOV) or whenever you have a reportable quantity hazardous substance spill you are required to report the incident to your MACOM immediately. Once notified of an NOV or a spill the MACOM is responsible for reporting to HQDA by notifying the U.S. Army Environmental Center (USAEC) within 48 hours of its occurrence; therefore, it is essential that you report such incidents to the MACOM immediately.

Your environmental coordinator can offer more information on these and other reporting requirements. Additional background on these reports is provided in the Supplementary Reading section.

What Happens if My Installation is Slated for Base Closure?

A commander's responsibilities to comply with environmental laws does not end when his/her installation is slated for closure.

In fact, being under such conditions will involve certain additional procedures. These are discussed in the Supplementary Reading section under **Real Property Transactions and Base Closure.**



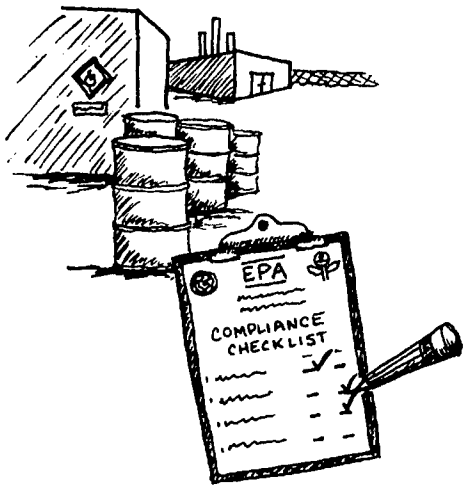
How Do I Know if I'm in Compliance?

Your environmental compliance status can be determined in two principal ways:

- through a formal inspection by a regulatory agency (e.g., EPA or state agency); or
- through an Army Environmental Compliance Assessment (ECA).

Regulatory inspections...

The state, EPA, or other regulatory agency will generally notify you of their intent to inspect your installation. However, by law, regulatory agencies are authorized to inspect Federal facilities at any time. These regulatory inspections normally concentrate on one particular program area, such as hazardous waste management or endangered species management. But, under the EPA Federal Facility Compliance Strategy (the EPA Yellow Book), inspection frequency guidelines have been established. For example, inspections for hazardous waste facilities under the Resource Conservation and Recovery Act (RCRA) generally occur annually. Inspections in other program areas may occur at different frequencies.



Once the inspection is completed, the regulatory agency will normally provide you with an exit briefing summarizing their findings. The regulatory agency normally does not produce a written report per se. Instead, you will receive a letter (normally within three to six months after the inspection) defining any non-compliance situations (this letter is often referred to as an NOV). This letter will document your compliance status, based on the inspection, and request you to provide a response detailing your corrective action plan. If the regulatory agency finds you in compliance, you may or may not receive written confirmation. After three to four months, you may wish to contact the agency to determine the installation's compliance status.

Note: See the Supplementary Reading, "How Can I Prepare for an Environmental Inspection" for more information.

ECAS Program...

The Army's Environmental Compliance Assessment System (ECAS) provides the installation commander a comprehensive overview of his environmental compliance status and a vehicle to plan for and program resources to implement corrective actions. An ECAS assessment is a "snapshot in time" review of your installation's environmental program. An ECAS assessment generally encompasses all aspects of the installation's environ-

mental program. The environmental program areas addressed during the course of an assessment are:

- Water Quality
- Wastewater
- Hazardous Waste Management
- Solid Waste
- Storage Tanks
- Installation Restoration Program
- Pesticide Management and Pesticides
- Cultural/Historic Resources
- Natural Resources
- National Environmental Policy Act
- Asbestos
- Environmental Noise
- Radon
- Environmental Program Management
- Hazardous Materials Management
- Air Emissions Management
- Pollution Prevention
- Petroleum, Oil and Lubricant Management
- PCBs
- Lead-Based Paints

The existing AR 200-1, dated May 1990, requires that installations have external assessments that are conducted (by a MACOM-approved independent agency or contractor) no less than once every four years. Internal ECAs (performed by installation personnel) are to be performed every two years. However, AR 200-1 is currently being rewritten and will require external assessments to be conducted on a minimum of a three-year cycle. The Installation Status Report, which will be completed annually by CONUS Active Army installations, meets the requirements of the internal assessment.

Currently, all external assessments are coordinated by your MACOM and are performed by various Army activities, e.g., the U.S. Army Materiel Command (AMC), the Corps of Engineers Divisions/Districts, the U.S. Army Center for Health Promotion and Preventive Medicine, and the U.S. Army Reserves. A successful assessment will require that the Installation Commander and his staff ensure that the following actions are carried out: actively support the Army activity performing the assessment; participate in both the pre-briefing and exit briefing; ensure that the installation staff review the assessment report in a timely manner and participate in the selection of the corrective actions; and ensure that the corrective actions are integrated into the programming/budget systems (RCS-1383 Report). Corrective actions may be administrative/policy, training, operational/procedural, project or equipment oriented.

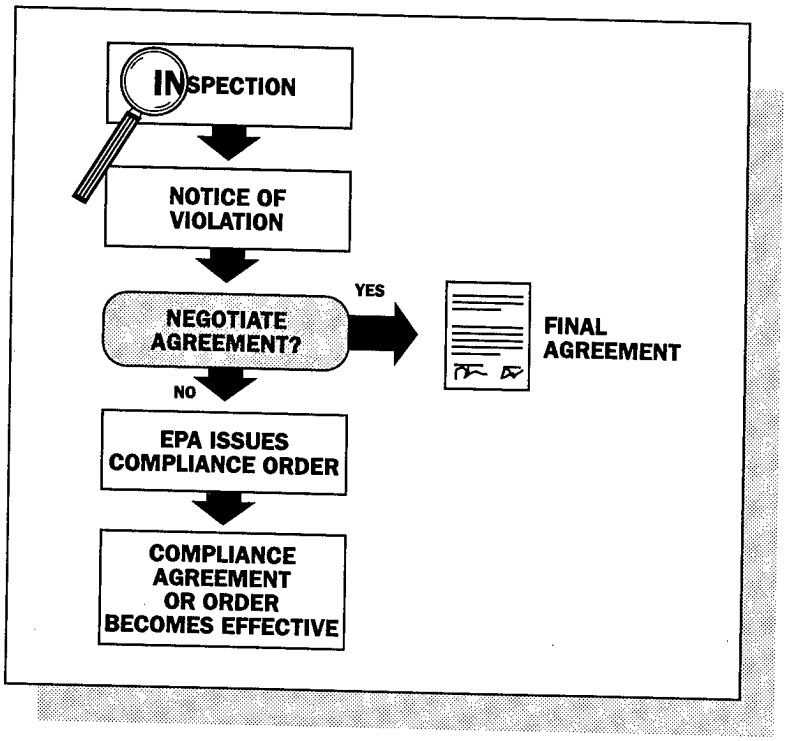
Some important environmental program areas (e.g., RCRA Subpart X) may not be addressed by your MACOM's external ECAS assessment; remember to include these programs in your internal ECAS assessments. Other regulatory agencies that installations are required to coordinate their activities with include:

- The U.S. Fish and Wildlife Service
- The Advisory Council on Historic Preservation
- The State Historic Preservation Office
- The Council on Environmental Quality

Though these agencies may not perform actual inspections or issue NOVs, statutory authority requires installations to perform specific assessments, coordinate reports and enter into consultation with agencies before performing certain actions.

What Happens if I'm Not in Compliance?

If non-compliance is determined as a result of a regulatory inspection, the regulatory agency will issue you a Notice of Violation (NOV) or some other form of written compliance request issued in an enforcement context which is equivalent to a NOV. The NOV will prescribe what you must do (but not how you do it) and the timelines to meet compliance. Generally, you will have approximately 30 days to respond to the regulatory agency. (The type of NOV you actually receive and the timetable to respond may vary by program area.) The figure illustrates the enforcement process.



Generally, most NOVs can, and should, be negotiated and resolved between the installation and the regulatory agency. Remember, Army policy requires you to immediately notify your MACOM when you receive a NOV.

The EPA or the state will seek to negotiate a Compliance Agreement or Consent Order if you fail to adequately respond to the NOV or if you're late in responding. They may also seek a Compliance Agreement or Order immediately if they feel there is an imminent and substantial threat to human health or the environment.

The EPA Yellow Book describes the regulatory enforcement strategy for Federal facilities and provides recommended language for regulatory agencies use in drafting NOVs, Compliance Agreements, and Consent Orders. The negotiated Compliance Agreement or Order will specify what actions must be completed and in what timeframes. Thus, Compliance Agreements and Orders are a mutually agreed upon corrective action plan.

At Government-owned, contractor-operated (GOCO) installations, EPA may seek enforcement action against both you and the contractor. For other areas of non-compliance, such as with the National Environmental Policy Act or the National Historic Preservation Act, the result can be a court-ordered Restraining Order or Injunction that would halt the action until those procedural compliance steps are taken.

If you determine that you have compliance deficiencies by some other means (normally through self-inspection), you should coordinate with your MACOM to determine your course of action. You should develop and budget for a corrective action plan to address compliance deficiencies.

What Are My Liabilities?

There are several civil and criminal penalties that are associated with improper environmental management. As Commander, you have ultimate responsibility and therefore should familiarize yourself with the laws.

Various Federal environmental statutes provide civil and criminal penalties for violations. Some of them are: Hazardous Materials Transportation Act, Occupational Safety and Health Act, Clean Air Act, Toxic Substances Control Act (TSCA), Resource Conservation and Recovery Act (RCRA), Safe Drinking Water Act (SDWA), Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)/Superfund Amendments and Reauthorization Act (SARA), Endangered Species Act, Clean Water Act, and Archaeological Resources Protection Act. The maximum penalties vary by statute and include fines ranging from $10,000 to $25,000 per day of violation and imprisonment from 1 year to 15 years. In the case of a civil enforcement action, your installation and its budget would suffer the consequences of enforcement. As far as personal liability, you as commander need to understand that direct participation in the violation of an environmental statute is but one theory of liability that could subject you to prosecution in the Federal district court.

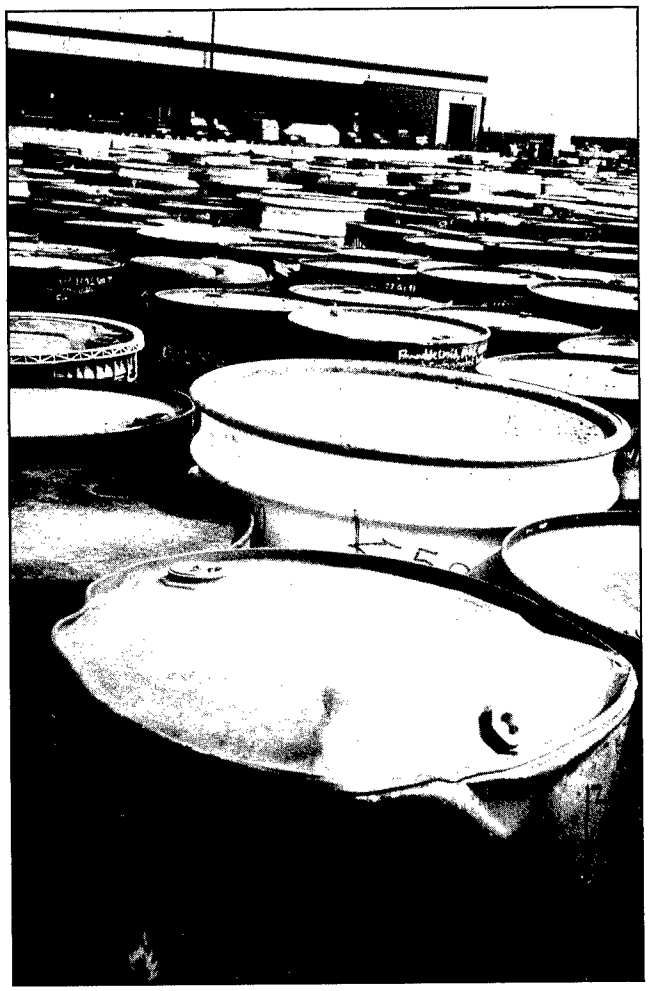
The commander who does not act promptly to correct environmental violations that he/she is aware of or should be aware of, may be subject to prosecution even though he/she had no direct or even indirect involvement in the violation. In a case involving three high ranking civilian employees at Aberdeen Proving Ground, the judge instructed the jury that they could convict the defendants if the jury was satisfied that the defendants had deliberately closed their eyes to violations that were occurring at Aberdeen or refused to be enlightened or take notice of the said violations. Courts have also upheld criminal convictions of senior officials of corporations, not directly involved in wrongful acts, under the statutory theory that they consciously screened themselves from a matter they had the power to prevent or correct, (i.e., culpable neglect). In the Supreme Court's words, these officials failed to create a "climate of compliance" in their companies.

If violations of the law do occur, your best course of action as commander is to inform the appropriate regulatory authorities immediately, and to engage in good faith efforts to come into compliance.

For further information about potential criminal liabilities and the type of conduct that leads to liability, consult with your command or Staff Judge Advocate.

What Can I Do to Get Into Compliance?

Once you have determined that you are out of compliance, you should:



- ✓ Notify your MACOM.
- ✓ Negotiate with the regulatory agency to set compliance requirements and timetables.
- ✓ Ensure any proposed compliance agreement is reviewed by Department of the Army Environmental Law Division.
- ✓ Develop a corrective action plan (Some MACOMs refer to this as an Environmental Management Plan).
- ✓ Prepare and submit a 1383 Report for each project requirement. (See Supplementary Reading for an explanation of the 1383 Report process.)
- ✓ Take action to implement your corrective action plan.
- ✓ Seek help from support agencies.

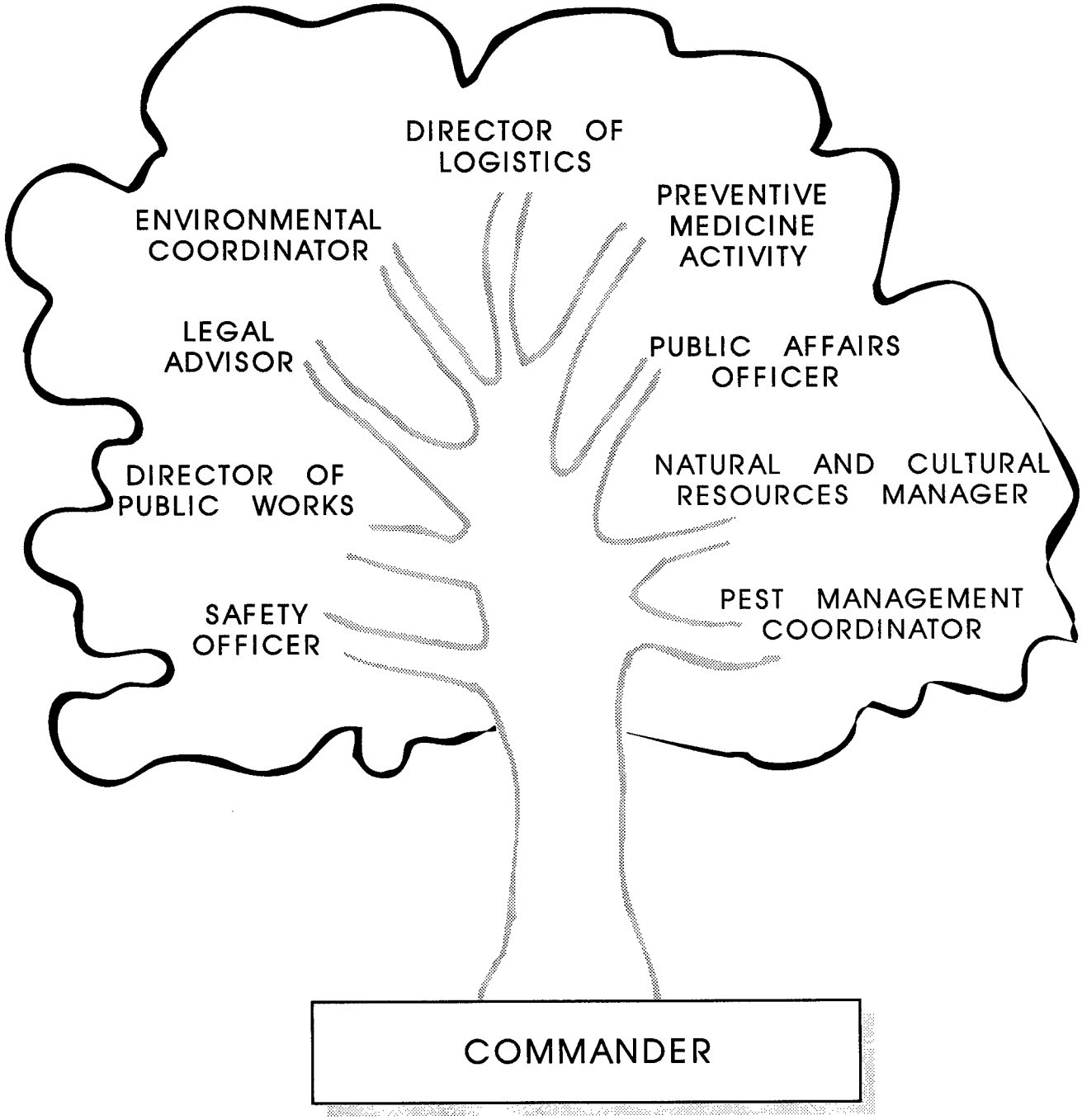
To achieve and maintain environmental compliance, you must develop a strong installation environmental program. Your most important tool for achieving and maintaining compliance is a strong, active environmental coordinator, supported by an Environmental Management Team that has your full endorsement for managing your installation's environmental program.

Notifying the MACOM of program requirements is critical to receiving the resources necessary to achieve and maintain compliance. The 1383 Report should be fully detailed and extensively reviewed by you before it is forwarded to the MACOM. The 1383 requirements should be identified in the installation budget submission to your MACOM. A negotiated compliance schedule must include a condition that it is subject to availability of funds. Incurring an unconditional obligation to spend money in future fiscal years may result in a violation of law.

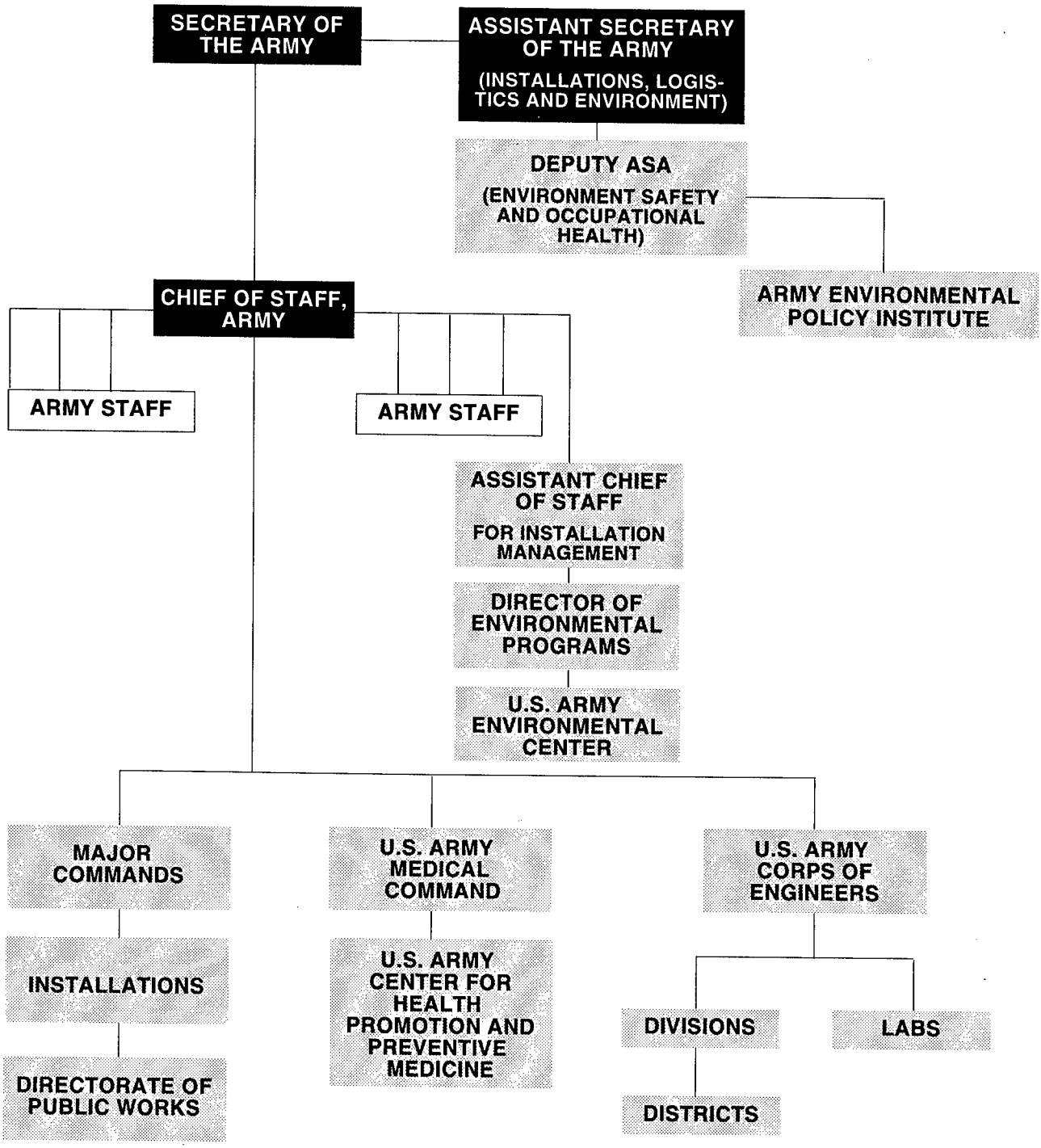
Over time, the three most important actions you can take to achieve and maintain compliance are as follows:

- establish an active environmental training program
- establish standard operational procedures which incorporate environmental considerations
- establish internal enforcement mechanisms

Who Are the Members of My Environmental Management Team?



The Army's Environmental Organization



What Questions Should I Ask My Environmental Management Team?

Questions for your Environmental Coordinator...

Overall Installation Program

What is our compliance status?

Does the environmental management program have sufficient staff and resources to ensure environmental compliance?

What NOVs have we received during the past year?

What NOVs are still outstanding?

Do we currently have any Compliance Agreements or Consent Orders?

What is our working relationship with the regulatory agencies?

Could I see the most recent ACTS report?

What 1383 Report requirements have we submitted?

What environmental projects are underway?

What projects are scheduled? When is completion projected?

When was our last ECA performed? By whom?

What deficiencies were found?

What are we doing to correct those deficiencies?

Do we have an Environmental Quality Control Committee?

Does the committee meet regularly to act on the full range of environmental issues?

Hazardous Waste Management Program

How much hazardous waste do we generate each month?

How do we dispose of our hazardous waste?

Have we experienced any problems with hazardous waste disposal?

Where and how much hazardous material is stored on our installation?

What units and processes are the major users of hazardous materials?

What are we doing to reduce the amount of hazardous material on our installation?

Do we have a RCRA Part B Permit or is a RCRA Part B Permit Application pending approval? Do we need one?

Do we have a corrective action requirement to fulfill under the RCRA Part B Permit?

How many Solid Waste Management Units (SWMUs) are included in the corrective action requirement?

What is its status and who is addressing it?

Are there any problems with tenant organizations complying with our installation requirements?

Pollution Prevention Program

What is the status of our Pollution Prevention program?

What are our Pollution Prevention goals?

What are we doing to attain these goals?

Environmental Restoration

Is our installation on the National Priorities List (NPL) or the Federal Facilities Docket?

Do we have any sites on the installation being addressed under DERP?

How many sites?

What is the status of any such sites?

Have we completed the Preliminary Assessment/Site Inspection (PA/SI)?

Is a Remedial Investigation/Feasibility Study (RI/FS) underway?

Do we have an Interagency Agreement (IAG)?

Has a Technical Review Committee been established?

Other Programs

Are we in compliance with the Safe Drinking Water Act?

Do we provide drinking water to anyone off-post?

Do we have any cooperative environmental programs with other organizations (such as resource recovery or recycling)?

Do we have an installation recycling program?

Who is our representative to the Local Emergency Planning Committee (LEPC)?

Do we have any air pollution control permits?

Do we have a current emissions inventory?

What is our local air quality attainment status?

Do we have a current policy on the use of CFCs and halons?

Do we have a requirement for clean fuel vehicles or transportation control plans?

Do we have any wastewater discharge permits?

What is the status of the permit?

Do we meet our permit discharge limitations?

Do we have a Historic Preservation Plan?

Do we have a current, approved Installation Spill Contingency Plan (ISCP)?

Do we have a current Spill Prevention, Control and Countermeasures Plan (SPCCP)?

Do the ISCP and the SPCCP include tenant activities?

Have the ISCP and the SPCCP been reviewed by a registered engineer?

When was the ISCP last tested?

What deficiencies were noted during the test?

What is the status of corrective actions?

How many reportable spills have we had the past year?

Were all spills reported properly?

How many underground storage tanks (USTs) do we have?

Have they all been tested?

How many tanks are leaking?

What is the status of corrective actions for leaking tanks?

Have we budgeted funds for testing/removing tanks and possible cleanups?

Do we have any environmental noise problems? If so, do we have a Noise Management Plan?

Do we have an Installation Compatible Use Zone (ICUZ) contour map for environmental noise generated by our installation?

Do we have proper operating permits for our landfills?

Have all our people been properly trained to do their jobs?

Has all training required by law or Army regulation been completed and records retained?

How many people need training?

Do we have an environmental awareness training program?

Have all of our buildings been inspected for asbestos?

Do any buildings require abatement?

Is there an Asbestos Management Plan?

How many buildings have been tested for radon?

Do any require remediation?

Are we currently receiving environmental support from other Army agencies? Which ones?

Do we need support?

Is the Environmental Coordinator a member of the Master Planning Board?

To whom does the Environmental Coordinator report?

Questions for your Public Affairs Office...

How is our environmental program perceived in the community?

What is our relationship with local officials regarding environmental issues? The Congressional delegation?

What is our relationship with the media on environmental issues?

What types of communication tools are being used to inform the public about our environmental program?

Do we have any good news stories from the Environmental Office that can be released to the local newspaper?

Do we have a public involvement and response plan for our DERP projects? Is it being implemented?

What actions is the Public Affairs Office (PAO) taking to increase the environmental awareness of our workforce?

Does the briefing for our new employees cover Environmental Programs?

Are any organized environmental groups interested in our installation?

Who are they and what is our relationship with them?

Questions for your Legal Office...

Who is our Environmental Law Specialist?

In what way is the Environmental Law Specialist actively involved in the planning, execution, and monitoring of our environmental programs?

How is the Environmental Law Specialist involved in integrating environmental protection and preservation activities into the planning and execution of our mission?

Is there coordination with key environmental personnel to ensure timely coordination of environmental issues?

Are our environmental permits reviewed by the Environmental Law Specialist for appropriateness of standards and environmental fees and taxes?

Does the Environmental Law Specialist review all command responses to local, state and Federal regulators?

Does the Environmental Law Specialist actively participate in environmental inspections and audits, and review inspection standards and inspection reports?

Is the Environmental Law Specialist involved in negotiations for compliance agreements?

Questions for your Safety Office...

Has everyone received the required Occupational Safety and Health Administration (OSHA) training?

How are the Hazard Communications (HAZCOMM) and other OSHA programs coordinated with the environmental plans and programs for hazardous waste?

Are accident prevention controls in place in operations that may threaten or damage the environment if an accident occurred?

Are we in compliance with the Army policy to protect the environment from the effects of ammunition, explosives, or chemical agent contamination of real property?

Questions for the Preventive Medicine Activity...

Do Preventive Medicine (PVNTMED) Activity Personnel need environmental training?

Do we have a medical monitoring program?

Are we experiencing any work-related health problems?

What is the PVNTMED involvement in the Technical Review Committee?

Do the PVNTMED Services and DPW/DSHE personnel meet on a regular basis?

Are we in compliance with the medical requirements of Title 29 Code of Federal Regulations (CFR) Part 1910.120?

Questions for your Natural and Cultural Resources Manager...

Do we have any agricultural leases?

Is there a possibility pollution may be migrating onto these sites?

Is there a possibility of environmental contamination on these parcels?

Do we have any property leased to commercial firms?

Do they generate hazardous waste?

How is it disposed?

Do we have any property proposed for leasing? For excessing?

Who certifies the condition of that land before it is excessed?

Are cultural resource inventories complete?

Do we have a current Cultural Resources Management Plan?

Are endangered species inventories complete?

Are there mission conflicts with endangered species?

Is there a plan for resolving such conflicts?

Is there coordination with the FWS?

Do we have soil erosion or sediment non-point pollution problems?

Do we have an Erosion Control Plan?

Do we have a wetlands inventory?

Do we have conflicts between mission and no net loss of wetland requirements?

Do we have an Integrated Training Area Management (ITAM) Program?

Do we have an approved Integrated Natural Resources Management Plan?

Is there a signed up-to-date cooperative agreement?

Has it been implemented?

Are we in compliance with NEPA?

Do we have a current Pest Management Plan?

Are we in compliance with FIFRA?

Are pesticides properly stored and applied?

Is weed control in compliance with Noxious Weed Act?

Questions for your Director of Logistics...

Do we have a hazardous material procurement and inventory control program?

How do we identify and account for hazardous materials purchased locally?

Do we have adequate storage facilities for hazardous materials?

Are warning signs and labels posted and Material Safety Data Sheets (MSDS) available?

Do we have proper safety materials, protective clothing, and equipment on hand for emergency clean up, treatment, and decontamination, if needed?

How Do I Handle Public Relations?

The best way to approach environmental issues with your neighbors is to redefine "public relations."

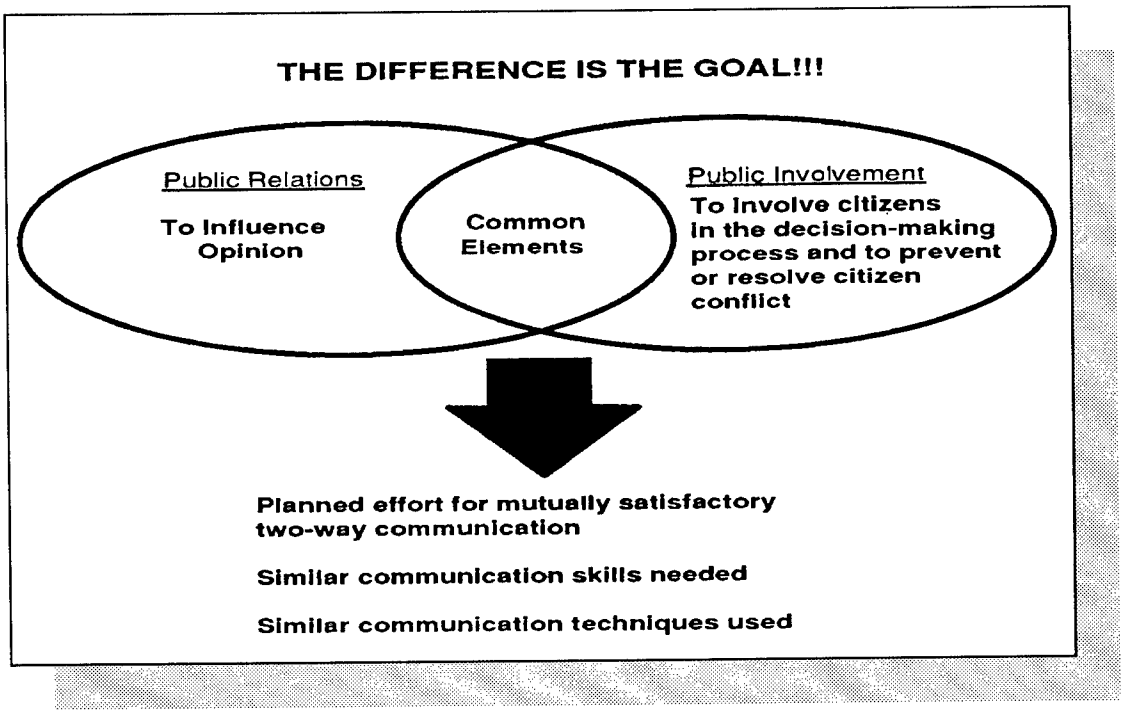
"Public relations" in environmental programs is really "public involvement" or "public participation." The terms appear interchangeable, but they are not.

Public involvement is commonly misconstrued to mean "public relations." Here's the difference:

Public relations is a planned effort to influence opinion through socially responsible performance, based on mutually satisfactory two-way communication.

Public Involvement is a planned effort to involve citizens in the decision-making process and to prevent or resolve citizen conflict through mutual two-way communication.

There are several common elements of public involvement and public relations.



The importance of public involvement as an integral part of the installation environmental program cannot be overemphasized. Many tough lessons have been learned in past years, the results of which have included negative news coverage, citizen-generated Congressional interest, and ad-

verse public reaction, all of which reflect inadequate or nonexistent public involvement.

While negative news coverage, irate political representatives, and adverse public reaction are distasteful, these aspects are not the primary reasons why the Army actively seeks public involvement.

Here are the reasons...

- It's critical for mission accomplishment. Whether the environmental issue is storage of hazardous waste or building a new barracks complex, the goal is to get the job done. Citizen reaction has stopped many projects, either through political pressure or through the court system.
- It's the law. Virtually every environmental law provides for some type of public involvement. Some requirements are more extensive than others, based on the environmental process being applied to a given situation or operation. Commanders are responsible for knowing and complying with all requirements.

The public...

Typically, the reason why citizens become involved in environmental issues is because they feel they have been left out of the decision-making process. Where citizens are involved in, or at least offered a part in, the environmental process from the beginning, few projects grind to a halt. An important consideration from your standpoint is that when adverse public reaction occurs, the technical resources and expertise that should be dedicated to accomplishing the task are diverted to addressing public outcry, resulting in, at a minimum, significant delays in the project.

Most, if not all, issues citizens are concerned about could, with a public involvement program, easily be managed along the way. A progressive and successful public involvement program prevents delays and assists, rather than deters, the project.

Because public involvement requires a mastery of communications skills, the activities should be managed by the Public Affairs Officer (PAO), in close coordination with other members of the Environmental Management Team.

The PAO is responsible for identifying and preparing plans for meeting public involvement requirements associated with environmental programs.

Remember...

Planning and implementation of the plans requires command involvement.

Tips for working with the community...

- Understand that the environment belongs to everyone.
- Understand the difference between public relations and public involvement.
- Understand that the average citizen distrusts the Government's representation of controversial issues, so openness and honesty from the beginning is crucial.
- Don't take criticism personally.
- Establish a contact (preferably in the PAO) and make him/her an expert.

- Go on the offensive — release information from the beginning of a project.
- Invite comment, even from those expected to be opposed.
- Understand that you're striving for objective, accurate, but not necessarily positive, news coverage.
- Never, ever, selectively release information.
- Never, ever, lie or even stretch the truth.
- Be prepared by maintaining current fact sheets and questions/answers and provide them at a later date.
- Don't be afraid to say "I don't know," and be prepared to search for answers.
- Offer briefings, site visits, and tours of your facility.

Elected Officials...

Many citizens will first turn to their elected officials when they have a complaint or concern about the community. Typically, these contacts serve to point out a need for more information and a mechanism for two-way communication. The two best methods for managing environmental issues with elected officials are:

- Plan and implement a progressive public involvement program that provides citizens with information they may otherwise seek from elected representatives, who will then seek it from you.
- Provide in the plan methods for keeping elected officials informed of the overall environmental program, and particularly of proposed actions or operations that may have environmental consequences. Such methods may include:

  — Regularly sending fact sheets or news releases about installation environmental activities.

  — Providing a contact person at the installation to expedite answers to questions they receive from constituents.

  — Providing tours/briefings on environmental programs so that they will better understand the issues.

  — Being personally involved in the communications process. Elected officials appreciate personal attention from the commander. Face-to-face communication with elected officials increases credibility and cements working relationships.

What About Training?

As in any endeavor, knowing how to go about completing a given job is essential to success. Achieving and maintaining environmental compliance is no different. Almost everyone wants to protect the environment and tries to comply with applicable laws and regulations. In fact, there are very few cases that involve intentional non-compliance. There are, however, a large number of environmental enforcement actions based on mistakes or accidents. Remember, ignorance of the law is no excuse, so ensure that personnel on your installation are well-informed and trained.

Environmental training needs to be provided to several groups at an Army installation.

- Your employees need to know how to accomplish their tasks in such a way that they comply with environmental regulations. This can sometimes be done by on-the-job training and by following standard operating procedures that address environmental requirements in detail. In other cases, classroom training, either in a school or provided locally, will be necessary.
- Some specific training is required by law. RCRA and OSHA, as well as some other laws, delineate training requirements for some of your personnel. Many of the applicable regulations also have regular refresher training requirements. For some topics, specific training plans and records are needed. Legally required training covers such operations and personnel as follows:

  - Hazardous waste generators, handlers, managers of accumulation points and storage facilities, treatment facility operators, and shipping manifest preparers.
  - Hazardous materials packers, receivers, drivers, and shipment certifiers.
  - Employees working with hazardous or toxic chemicals. Soldiers are included unless they are performing military-unique tasks.
  - Employees working where they could be exposed to certain specific chemicals in their jobs.
  - Asbestos demolition and removal; maintenance and repair work involving asbestos disturbance; asbestos sampling.
  - Employees exposed to lead-based paint during building maintenance, repair, demolition, or removal.
  - Employees discovering and/or responding to spills of oil or hazardous substances.
  - Persons working at or maintaining hazardous site cleanup or investigations.
  - Pesticide applicators.
  - Operators of boiler plants, incinerators, water or wastewater treatment facilities (as required by your state).

Find out who needs training and see that they are trained. All such personnel should have updated training files.

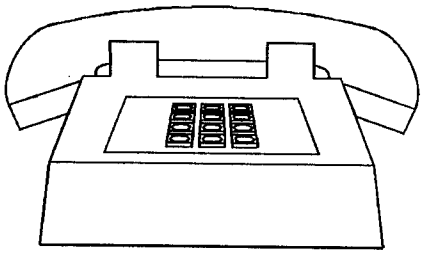
- Your supervisors and small-unit commanders need to know where to go for help in managing their operations, consistent with applicable environmental laws and regulations. Their primary source of information is your environmental coordinator. With his/her help, they can identify actions needed to comply with environmental laws and regulations. In addition, some training may be necessary to help them understand what is required and how to meet the requirements.
- Your managers and senior commanders need awareness of their overall responsibility to comply with environmental laws and regulations and how their decisions can influence the installation's compliance status.
- Environmental training within the Army is available primarily from the Army Logistics Management College, Ft. Lee, VA; the Corps of Engineers Training Directorate, Huntsville, AL; and the Center for Environmental Initiatives and Hands-On Training, Ft. Sill, OK. Army military schools are also starting to incorporate environmental awareness training into their curricula, with the U.S. Army Engineer School (USAES) as the TRADOC executive agent for these integration efforts. An installation environmental train-the-trainer program is available via ALMC's "Installation Environmental Trainer Course" and the associated "Unit Environmental Compliance Officer Course."
- For general environmental awareness for soldiers, the USAES developed TC 5-400, "Unit Leader's Guide to Environmental Stewardship." The TC is supplemented by a video and training support package, called "The Unit and the Environment," TVT 5-129, available through your training and Audiovisual Support Center (TASC). For individual soldiers, 3 courses are now available through the Army Correspondence Course Program:

  - Junior Enlisted Environmental Awareness Training, EN5700, for E-1s through E-4s.

  - Small Unit Leader Environmental Awareness Training, EN5702, for E-5s, E-6s, and O-1s through O-3s.

  - Senior Leader Environmental Awareness Training, EN5704, for E-7s through E-9s, O-4s and higher.
- The Environmental Training Support Center (ETSC), Huntsville, AL, produces the Defense Services Directory of Environmental Training Courses on computer disk, with information about environmental short courses from Army, DoD, other government agencies, universities, and commercial sources. ETSC assists with environmental training inquiries, including course schedules, and in obtaining/customizing training and awareness products.

Best use of the available resources on your installation, supplemented by appropriate training for selected groups or individuals, can make the difference in your compliance status.



Where Do I Go For Help?

Listed below are points of contact and other sources of information for each of the program areas and technical elements described in this Handbook. It is important to be aware of EPA, state regulatory agencies, and local sources of information which may be helpful to personnel at individual installations.

DA — Department of the Army

DOD — Department of Defense

CEIHOT — Center for Environmental Initiatives and Hands-On Training

EPA — U.S. Environmental Protection Agency

ETSC — Environmental Training Support Center

WES — U.S. Army Waterways Experiment Station

ALMC — U.S. Army Logistics Management College

CERL — U.S. Army Construction Engineering Research Laboratory

CRREL — U.S. Army Cold Regions Research Engineering Laboratory

ODEP — Office of the Director of Environmental Programs

USACHPPM — U.S. Army Center for Health Promotion and Preventive Medicine

USACPW — U.S. Army Center for Public Works

USAEC — U.S. Army Environmental Center

USAES — U.S. Army Engineer School

USASC — U.S. Army Safety Center

USATCES — U.S. Army Technical Center for Explosives Safety

General Technical Contact

The Army Environmental Response Line

CONUS	800-USA-EVHL, 800-872-3845
OCONUS	(410) 671-1699, DSN 584-1699

Specific Technical Contacts

AIR POLLUTION MANAGEMENT

USACHPPM — Air Pollution Engineering Division

Air Pollution Source Management	(410) 671-3500, DSN 584-3500

Ambient Air Quality Management	(410) 671-3500, DSN 584-3500
USAEC — Environmental Compliance Division	(410) 671-1208, DSN 584-1208
USACPW — Mechanical and Energy Division	(703) 806-6111 DSN 656-6111

ASBESTOS

EPA — Asbestos Hotline	(202) 554-1404
USACPW — Buildings and Structure Division	(703) 806-5991, DSN 656-5991
USAEC — Environmental Compliance Division	(410) 671-1208, DSN 584-1208

CFCs AND HALONS

ODEP — Environmental Quality Division	(703) 693-0547, DSN 223-0547
USACHPPM — Air Pollution Source Management	(410) 671-3500, DSN 584-3500
USAEC — Environmental Compliance Division	(410) 671-1208, DSN 584-1208
USACPW — Mechanical and Energy Division	(703) 806-6071, DSN 656-6071

CULTURAL RESOURCES

ODEP — Environmental Readiness Division	(703) 693-0675, DSN 223-0675
USAEC — Environmental Compliance Division	(410) 671-1579, DSN 584-1579

DATA MANAGEMENT

USAEC — Information Management Branch	(410) 671-1650, DSN 584-1650
USAEC — Environmental Compliance Division	(410) 671-1681 DSN 584-1681

EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW

USAEC — Environmental Compliance Division	(410) 671-1229, DSN 584-1229

ENDANGERED/THREATENED SPECIES

ODEP — Environmental Readiness Division	(703) 693-0678, DSN 223-0678
USAEC— Environmental Compliance Division	(410) 671-1579, DSN 584-1579

ENVIRONMENTAL COMPLIANCE ASSESSMENT SYSTEM

USAEC—Environmental Compliance Division	(410) 671-1229, DSN 584-1229

ENVIRONMENTAL NOISE

USACHPPM — Environmental Noise	(410) 671-3829, DSN 584-3829

ENVIRONMENTAL RESTORATION PROGRAM

USAEC — Installation Restoration Division	(410) 671-3618, DSN 584-3618
USAEC — Base Closure Division	(410) 671-1601, DSN 584-1601

EXPLOSIVES SAFETY

USATCES	(815) 273-8802, DSN 585-8802

GROUNDWATER CONTAMINATION

USACHPPM — Groundwater and Solid Waste	(410) 671-2024, DSN 584-2024

HAZARDOUS AND TOXIC WASTE AND MATERIALS MANAGEMENT

USAEC — Environmental Compliance Division	(410) 671-1208, DSN 584-1208
USACPW — Electrical Division	(703) 806-6113, DSN 656-6113
EPA — RCRA/Superfund Hotline	800-424-9346
USACHPPM — Hazardous and Medical Waste Management	(410) 671-3651, DSN 584-3651
EPA — TSCA Hotline	(202) 554-1404

HISTORIC PRESERVATION

USAEC — Environmental Compliance Division	(410) 671-1579, DSN 584-1579

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

ODEP — Strategy, Plans and Programming Division	(703) 693-0543, DSN 223-0543
USAEC — Environmental Compliance Division	(410) 671-1579, DSN 584-1579

NATURAL RESOURCES

ODEP — Environmental Readiness Division	(703) 693-0677, DSN 223-0677
USAEC — Environmental Compliance Division	(410) 671-1579, DSN 584-1579

PESTICIDES AND PEST MANAGEMENT

USACHPPM — Pest Management	(410) 671-3613, DSN 584-3613
DoD Pesticide Hotline	DSN 584-3773
USAEC— Environmental Compliance Division	(410) 671-1579, DSN 584-1579
EPA Hotline	800-858-7378

POLLUTION PREVENTION

USAEC — Environmental Compliance Division	(410) 671-1229, DSN 584-1229
USACHPPM —Hazardous and Medical Waste Management	(410) 671-3651, DSN 584-3651
ODEP — Environmental Quality Division	(703) 693-0551/52, DSN 223-0551/52
USACPW —Sanitary and Chemical Division	(703) 806-5202, DSN 656-5202

PUBLIC INVOLVEMENT

USAEC — Public Affairs Office	(410) 671-2556, DSN 584-2556

RADON

USACPW — Sanitary and Chemical Division	(703) 806-5202, DSN 656-5202
ODEP — Environmental Quality Division	(703) 693-0547, DSN 223-0547

RESOURCING, DOCUMENTING, REPORTING
[1383 Report, Army Compliance Tracking System (ACTS)]

USAEC — Information Management Branch	(410) 671-1650, DSN 584-1650
USAEC — Environmental Compliance Division	(410) 671-1681, DSN 584-1681

SOLID WASTE MANAGEMENT

USACHPPM — Ground Water and Solid Waste	(410) 671-2024, DSN 584-2024
USAEC — Environmental Compliance Division	(410) 671-1208, DSN 584-1208
USACPW — Sanitary and Chemical Division	(703) 806-5211, DSN 654-5211

STORMWATER

USACPW — Sanitary and Chemical Division	(703) 806-5201, DSN 656-5201
USAEC — Environmental Compliance Division	(410) 671-1208, DSN 584-1208

TECHNOLOGY DEVELOPMENT

USAEC — Environmental Technology Division	(410) 671-6838, DSN 584-6838
CERL — Environmental Division	800-USA-CERL
WES — Environmental Engineering Division	(601) 634-3703
CRREL — Experimental Engineering Division	(603) 646-4405, DSN 684-4405

TRAINING (ENVIRONMENTAL)

ALMC — Environmental Management Department	(804) 765-4803, DSN 539-4803
ALMC — Registrar	(804) 765-4965, DSN 539-4965

CEIHOT — Training Office	(405) 442-2111, DSN 639-2111
USAES — Environmental Branch	(314) 563-4122, DSN 676-4122
Corps of Engineers Training Directorate (Registrar)	(205) 722-5821/22, DSN 788-4377/78
ETSC — Resource Center	(205) 722-5883, FAX (205) 722-5896
USACHPPM — Training Office	(410) 671-4158, DSN 584-4158
USAEC — Environmental Compliance Division	(410) 671-1674, DSN 584-1674
USASC — Programs Division	(205) 255-3913, DSN 558-3913

WASTEWATER MANAGEMENT

USACHPPM —Surface Water and Wastewater	(410) 671-3816, DSN 584-3816
USACPW — Sanitary and Chemical Division	(703) 806-5201, DSN 656-5201
USAEC — Environmental Compliance Division	(410) 671-1208, DSN 584-1208

WATER SUPPLY

USACHPPM — Water Supply Management	(410) 671-3919, DSN 584-3919
USACPW— Operator Assistance	(703) 806-5201, DSN 656-5201

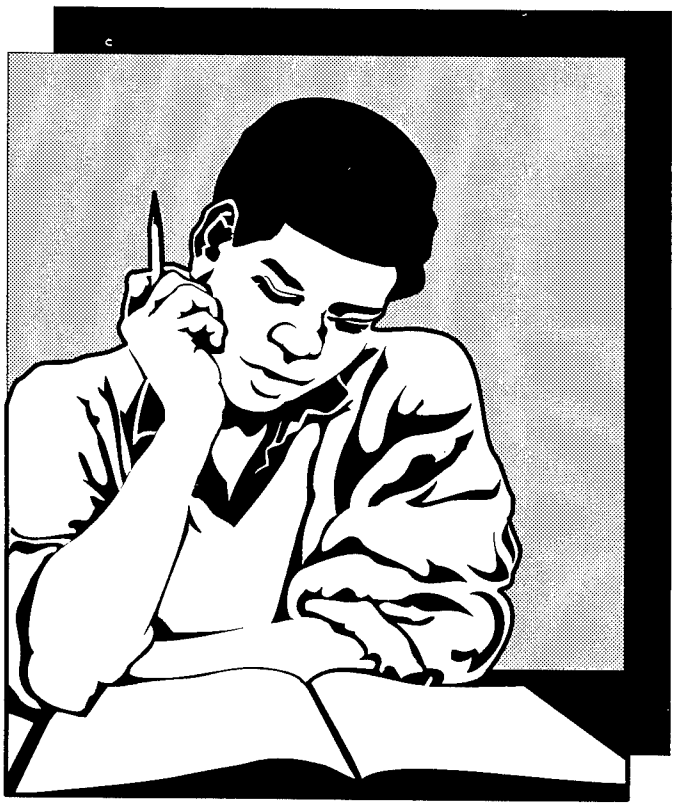
Federal Facilities Coordinators

EPA REGION I (CT, MA, ME, NH, RI, VT)	(617) 565-3927
EPA REGION II (NJ, NY, PR, VI)	(212) 264-1840
EPA REGION III (DE, MD, PA, VA, WV)	(215) 597-1269
EPA REGION IV (AL, FL, GA, KY, MS, NC, SC, TN)	(404) 347-3776
EPA REGION V (IL, IN, MI, MN, OH, WI)	(312) 353-6478
EPA REGION VI (AR, LA, NM, OK, TX)	(214) 655-7452
EPA REGION VII (IA, KS, MO, NE)	(913) 551-7688
EPA REGION VIII (CO, MT, ND, SD, UT, WY)	(303) 294-1982
EPA REGION IX (AZ, CA, HI, NV)	(415) 744-1663
EPA REGION X (AK,ID,OR,WA)	(206) 553-2803

What Additional Information Would I Find Useful?

The Supplementary Reading section can be read at your leisure — it is designed to provide you with background knowledge on each major environmental program and direct you on current regulations and references.

The programs are organized alphabetically from air pollution to wetlands. Other topics, such as a legislative overview and further information on resourcing and reporting, are also included.



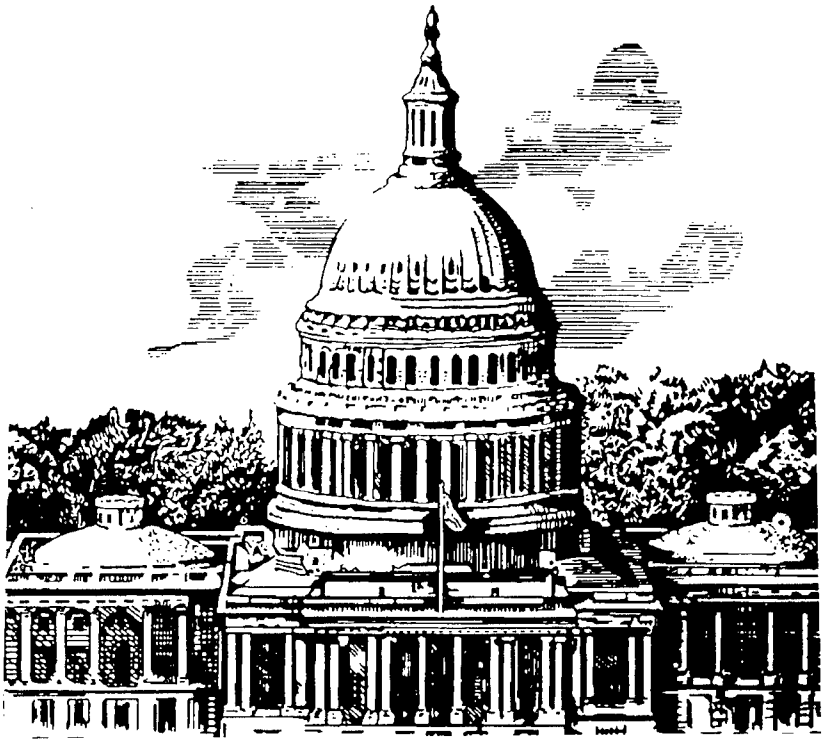
Supplementary Reading Contents

Legislative Overview

Environmental regulations impact virtually every operation throughout your installation, and you are responsible for considering environmental impacts in decision making processes.

The proliferation of environmental laws since the turn of the century, and particularly within the past two decades, must be reflected in an increased awareness of managerial responsibility for and stewardship of the environment. The Federal government is responsible for complying with more than 40 environmental statutes and amendments, 34 of which have been passed by Congress within the past 25 years. Reauthorization of existing laws and passage of additional statutes to address newly recognized requirements for environmental protection are expected to increase through the turn of the century. Commanders can expect requirements for environmental compliance to increase in complexity and encompass most, if not all, of the installation's mission and operations.

Federal environmental laws are implemented through a series of regulations that are frequently promulgated by the U.S. Environmental Protection Agency (EPA). Additional agencies such as the U.S. Fish and Wildlife Service (FWS) and the Advisory Council on Historic Preservation (ACHP) regulate endangered species and historical/archeological resources, respectively. These regulations are then supplemented by Department of Defense (DOD) directives and Army Regulations (ARs) for implementation by the individual installations.



Laws You Need to Know

Most Federal environmental regulations are promulgated in response to legislation passed by Congress. The principal environmental laws of the last two decades are listed below.

Clean Air Act (CAA) of 1970 as amended through 1990 — provides requirements to prevent or control air pollution from stationary and mobile sources; includes provisions for control of air toxins, acid rain, and CFCs/halons. Provides for a new national air quality permit program and increased enforcement (civil and criminal).

Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) of 1972 — requires the licensing or registration of pesticide products; requires proper management of pesticide use, storage, and disposal.

Safe Drinking Water Act (SDWA) of 1974 — regulates drinking water quality for pollutants that may have an adverse effect on human health or negatively effect the aesthetic quality of drinking water.

Endangered Species Act of 1973 as amended — requires that actions of Federal agencies do not jeopardize the existence of threatened or endangered species or destroy or adversely impact critical habitats of these species.

National Historic Preservation Act of 1966 — requires Federal agencies to consider effects of their actions (i.e., construction, leasing, land transactions, base realignment and closure) on cultural and historic resources.

Clean Water Act (CWA) of 1972, as amended through 1987 — regulates discharge of wastewaters from any point source including industrial facilities and sewage treatment facilities; requires reporting and clean-up of oil and hazardous substance spills in waterways; also protects waterways.

Resource Conservation and Recovery Act (RCRA) of 1976 as amended through 1984 — establishes guidelines and standards for hazardous waste generation, transportation, treatment, storage and disposal.

Toxic Substances Control Act (TSCA) of 1976 — regulates, among others, polychlorinated biphenyls (PCBs), chlorofluorocarbons (CFCs), and asbestos; requires testing of chemical substances entering the environment, regulating releases where necessary.

Noise Control Act of 1972 — establishes a national policy to promote an environment free from noise that jeopardizes health and welfare, and regulates noise emissions from commercial products such as transportation and construction equipment.

Other Regulations That Affect You

Executive Order 12088...

Executive Order 12088 is the critical link between Federal environmental regulations and Federal facilities. Titled "Federal Compliance with Pollution Control Standards," Executive Order 12088 was signed on October 13, 1978. This order mandated that Federal facilities control and monitor environmental pollution in compliance with Federal environmental regulations, and it established the A-106 reporting process (the Army refers to this as the 1383 report). EPA has issued a document entitled "Federal Facilities Compliance Strategy" (November 1988), also known as the EPA Yellow Book, which establishes a comprehensive and proactive approach by which Federal facilities may comply with these Federal regulations. This EO has specific applicability outside the United States.

Executive Order 12114...

Executive Order 12114 addresses the environmental effects of major Federal actions abroad. The purpose of the order is to establish internal procedures for Federal agencies to consider the significant effects of their actions on the environment outside the United States. All interaction between Federal agencies and foreign governments is coordinated by the Department of State. The objectives of this program are to provide information to decision-makers, to increase awareness and interest in environmental concerns, and whenever possible, encourage environmental cooperation with foreign nations.

Potential state regulations...

Each state has its own regulatory organization charged with developing and implementing environmental regulations. Many of these state regulations parallel Federal environmental regulations. In fact, most Federal statutes allow promulgation of state standards at least as stringent as the Federal requirements. When EPA approves a state's program, the state has "primacy" for that particular program. In addition, in many instances, state agencies have promulgated regulations more stringent than the Federal requirements. Because it is not possible in this Guide to summarize all state regulations, it is important that you be aware that state standards can be more stringent than Federal requirements. It is your responsibility to ensure that your installation environmental staff stays abreast of, and in compliance with, both Federal and state, as well as any applicable local or host nation regulations.

Summary of Army regulations...

The Army has developed its own environmental regulations with which you must also comply. Although many of these regulations are similar to EPA regulations, several requirements are more stringent than those of EPA. Many Army environmental regulations are contained in AR 200-1, "Environmental Protection and Enhancement." AR 200-1 prescribes policies, responsibilities, and procedures to protect and preserve the quality of the environment. AR 200-1 addresses the following major areas:

- Research and Development

- Water Resources
- Air Pollution
- Hazardous Materials Management
- Solid and Hazardous Wastes
- Noise
- Oil and Hazardous Substances Planning
- Environmental Restoration
- Asbestos
- Army Radon Reduction Program
- Other Environmental Programs

Other ARs which address specific programs that have an impact on environmental management are:

AR 200-2, "Environmental Effects of Army Actions." This regulation sets forth policy, responsibilities, and procedures for integrating environmental considerations into Army planning and decision making in accordance with the requirements of NEPA. It lists the types of actions or projects which must be evaluated for their potential environmental impacts and the criteria for determining which type of environmental documentation is appropriate.

AR 420-40, "Historic Preservation." This regulation prescribes Army policy for cultural resource management and guidance for the treatment of historic properties, including any significant prehistoric or historic district, site, building, structure, or object on Army-controlled property in compliance with the National Historic Preservation Act of 1966. Additionally, it defines the Army's requirement for the development of a Cultural Resources Management Plan (CRMP), which details installation procedures for integrating cultural resource management responsibilities with mission requirements.

AR 420-47, "Solid and Hazardous Waste Management." This regulation sets forth the Army's original responsibilities, regulatory requirements, and procedures for the proper management of solid and hazardous waste. Most of these program requirements have been amended and incorporated into the revised AR 200-1. The solid waste management policy and responsibilities that still apply address solid waste collection procedures and operation of solid waste disposal facilities located on the installation.

AR 200-3, "Natural Resources-Land, Forest and Wildlife Management." This regulation sets forth policy and guidance for the management and maintenance of all lands under Army control. This includes the soils, vegetation, fish, wildlife, endangered species, and forests which are used for mission, recreation, timber production, agricultural leasing, and other purposes which are in the Army's or public's interest.

AR 420-76, "Pest Management." This regulation provides policies, standards, and procedures for pest control activities on Army installations. It requires the Directorate of Engineering and Housing (DEH) to prepare and annually update a Pest Management Plan (PMP) which lists all program objectives in priority order according to the potential or actual impact on health, morale, structures, or property.

AR 200-1 also provides general environmental responsibilities for installation commanders. You must:

- Establish a structure to plan and execute environmental programs;
- Integrate environmental and cultural protection into the execution of the command's basic mission;
- Cooperate with regulators to maintain environmental compliance;
- Provide regulators access to facilities to monitor compliance;
- Report indications of environmental crises immediately through the command channels to the Office of the Director of Environmental Programs; and
- Conduct a public affairs program to support the Army's environmental program.

How Can I Prepare for an Environmental Inspection?

Regulators often give little or no advance notice of inspections or sites they wish to inspect. Accordingly, the installation ultimately must be ready at all times. Following is a list of recommended proactive measures to ensure Installations are prepared to undergo a regulatory environmental compliance inspection:

- Regulatory training and training records are usually the first areas of compliance checked. Training records need to be current, up-to-date, with appropriate personnel trained. This area must have real command emphasis and focus.
- Regulators ALWAYS go back and check previous violators/violations to determine progress and/or compliance. A system must be established for tracking, and accounting for, corrective actions of previous environmental non-compliance.
- The installation's Environmental Office should perform internal "staff assistance" visits at least annually or provide such internal inspections upon request. These inspections are intended to prepare installation activities for an actual compliance inspection by regulatory agencies as well as help ensure overall compliance by the installation.
- Environmental Points-of-Contact should be established at all installation activities down to the unit level. These appointees should receive all appropriate and required regulatory training and sufficient support training to adequately address the environmental compliance issues for that activity. These POCs should develop good working relationships with the installation Environmental Office. A list of all current environmental POCs should be maintained and readily available. To be effective, this list must provide the POC's name, phone number, activity, and location.
- Any organization/system is only as effective as the attention it receives. The installation's Environmental Quality Control Committee (EQCC) must receive command emphasis; its meetings must be well attended and it should meet regularly and frequently enough to foster a healthy environmental program and ethic.
- Use available installation communications media to enhance the installation community's environmental awareness and ethic. Television, radio, newspaper, and other media can be used in addition to commander's policy letters or statements on environmental compliance and stewardship.
- Also worthy of consideration is an installation regulation that addresses all issues related to environmental programs, with specific emphasis on that installation's environmental uniqueness.
- Environmental records/files MUST be well organized and maintained. In particular, the following files/records need to be well organized: Haz Waste Mgmt Plans/SOPs; Spill Plans/SOPs; Waste Analysis Plan/SOP; Closure Plans; Manifests; Weekly Inspections; Training Records/plans; Waste Mgmt Contracts; Safety and Security plans;

Land Disposal Restriction Forms; Permits/Permit Applications; Turn-In Records (DRMO); and State and Local recordkeeping requirements.

- **The Department of Defense has established Regional Environmental Offices throughout the United States. These offices have been created to assist installations and Major Commands, of all Services, in coordinating and facilitating resolution of environmental issues with State and Federal regulatory agencies. Contact the U.S. Army Environmental Center at (410) 671-1200 for more information.**

Organizing for a Regulatory Inspection

As noted previously, regulatory inspections may, or may not, be announced. In either event, regulators have the right, by law, to conduct compliance inspections of DOD facilities. Following is a list of recommendations for handling a regulatory environmental compliance inspection:

- If time permits, distribute a regulatory inspection "notification letter," signed by Installation Commander, which--

  (a) Includes authorization from Commander for full cooperation and open response to inspection team.

  (b) Identifies who, what, when, where, and how.

  c) Is distributed as soon as practical before the regulatory inspection and includes pertinent activities both directly AND indirectly involved with environmental operations (DEH/DPW, DRMO, DOL, Safety, Supply, PAO, IHPO, O&M, MWR, SJA, Preventive Med., Fire Dept., etc.).

  (d) References potential impacts of the inspection (NOVs, fines, publicity, etc.).

- Regulators should be requested to in-brief the Commander upon entering the installation. The Commander may choose to receive the in-brief and/or delegate. Legal representatives (SJA) should attend.

- In the event there is not enough advance notice to prepare and distribute a notification/"heads up" letter -- a system must be in place to efficiently communicate directly and/or by phone/e-mail.

- During the in-brief, agreements will be reached on units/activities to be inspected. As soon as possible, these units must be notified of the time and entry location. Quick notification allows the appropriate POC to answer questions which, left unanswered, typically lead to findings of non compliance.

- Representatives from the Environmental Office should escort the regulators for the entire duration of the inspection. Escorts should be chosen based on....

  (a) Their knowledge of the activity(s) being inspected.

  (b) Their knowledge of the relevant environmental regulations.

  (c) Their communications and "person-to-person" skills.

Escorts for the regulators will....

(a) Help inspectors locate the activity to be inspected.

(b) Help inspectors make contact with the activity's environmental POC.

(c) Document inspector questions that are unanswered during the facility on-site inspection; obtain answers to these questions and provide to inspectors to avert potentially wrong assumptions.

(d) Help ensure that a positive posture of the installation is obtained through chronicling environmental success stories at the installation.

Records/Files MUST be organized for effective review and inspection...

(a) Ensure that pertinent records/files are available ("up-front") and easily accessed by inspection team.

(b) Records/files must be legible and reviewable.

(c) Develop records/files indices and arrange contents chronologically.

(d) Copies of previous inspection reports should be readily available.

Conduct status meetings after each day to review findings and plan for next day.

"Do's" and "Don'ts" During a Regulatory Inspection

The following recommendations will help ensure that the installation puts its "best foot forward" during a regulatory environmental inspection:

✓ DO notify the chain-of-command that regulators are on-site.

✓ DO insist upon an in-brief and an out-brief with the installation commander or his designee.

✓ DO ensure that a member of the installation's supporting Environmental Office is present during every phase of the inspection. They can answer technical environmental questions or deal with issues that the activity POC is unsure of.

✓ DO politely ask the inspectors for their credentials and the purpose of the visit. (This is especially important if an inspector is from a division that performs criminal investigations).

✓ DO establish the parameters of the inspection during an opening conference.

✓ DO keep a log and a separate copy for the installation of all documents provided to inspectors.

✓ DO take detailed notes during the inspection.

✓ DO obtain a copy of any form the investigator uses.

✓ DO request a copy of the inspector's report.

✓ DO mark confidential documents as such and inform the inspector of their confidential nature.

✓ DO ensure that all questions by regulators during an inspection are answered by the appointed POC or alternate.

✓ DO ensure regulators are treated in a courteous, professional manner throughout an inspection.

✓ DO provide maximum assistance to the regulator in obtaining documentation requested, i.e., training records, manifests, DD1348-1s, and Material Safety Data Sheets.

✓ DO request assistance from regulators on technical issues and concerns; they are a source of specialized information and expertise that may help resolve environmental compliance concerns.

✓ DO maintain open communication with regulatory agencies (proactive relationship).

✖ DON'T lie, conceal or destroy documents.

✖ DON'T argue with the regulator.

✖ DON'T volunteer unnecessary or unsolicited information.

✖ DON'T try to answer questions if you don't know the answer; tell the regulator that you don't know but will get the information for him/her.

✖ DON'T try to hide areas of noncompliance; don't load drums on a vehicle and drive around waiting for regulators to leave. They often return to a previously inspected site to check on this type of action. On the other hand, one does not need to point out areas of concern that may exist but are not addressed, questioned, or asked about. Keep in mind that regulators have different interests and objectives despite our efforts to partner and work with them.

Areas of High Probability for Regulatory Scrutiny

With implementation of the Federal Facilities Compliance Act, an installation may be inspected at least annually and possibly more frequently by a state or federal regulator. With the increasing number of fines levied against federal facilities for noncompliance in the past few months, it is important to know what to prepare for in a compliance inspection.

Review the items on the environmental compliance evaluation checklist below. The greatest potential violations are identified here. If the installation has addressed these issues properly, and prepared its activities accordingly, it should pass the inspection easily. Because regulators may appear at any time, the items identified on the checklist should become the installation's routine.

Areas of high probability for regulatory scrutiny are listed below:

1. Has the facility received an EPA Identification Number? [40 CFR 262.12]
2. Has the generator determined that certain wastes are a hazardous waste? [40 CFR 262.11]
3. Has the generator notified the U.S. Environmental Protection Agency (EPA) of their waste activities? [EPA Form 8700-12 "Notification of Regulated Waste Activity]
4. Are containers marked with either the words "hazardous waste" or with other words that identify the contents of the containers? [40 CFR 262.32(b)]
5. Are containers holding the hazardous waste in good condition, safe to handle? [40 CFR 265.171]
6. Are contents of the containers compatible with the container, i.e., acid in metal drum? [40 CFR 265.172]
7. Are containers holding the hazardous waste closed except when necessary to add or remove waste? [40 CFR 265.173]
8. Are containers handled in a manner to prevent damage, rupture, or leaks? [40 CFR 265.173(b)]
9. Are containers marked with the accumulation start date? [CFR 262.34(c)(2)]
10. Is hazardous waste stored on-site longer than 90 days? [40 CFR 262.34] [generator status only]
11. Is generator accumulating more than 55 gallons of hazardous waste or one quart of acutely hazardous waste [Section 261.33(e)] in containers at or near the point of generation? [40 CFR 262.34(c)]
12. Are manifests prepared for each shipment of hazardous waste sent off-site for transportation, treatment, or storage? [40 CFR 262.20]
13. Have facility personnel successfully completed required training? [40 CFR 265.16] [29 CFR 1910.120 and 29 CFR 1926]
14. Are container storage areas inspected at required intervals? [40 CFR 265.175]
15. Are containers containing ignitable or reactive waste stored at least 15 meters (50 feet) from the facility's property line? [40 CFR 265.176]
16. Has the owner or operator of the facility developed a means to control entry or access to the facility where waste is stored? [40 CFR 265.14]
17. Is the facility operated in a manner to minimize the possibility of fire, explosion, or release of hazardous waste or other hazardous constituents? [40 CFR 265.32]
18. Is adequate aisle space maintained to allow unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment? [40 CFR 265.35]
19. Does the facility have an Emergency Preparedness and Contingency Plan? [40 CFR 265.34]

20. Do personnel have immediate access to an internal alarm or emergency communications device? [40 CFR 265.265.34]

21. Are records, including plans, made available within a reasonable time for inspection? [40 CFR 265.74]

NOTE: The provisions of 40 CFR 262.34 are applicable to the on-site accumulation of hazardous waste by generators (less than 90-day storage facility). A generator that treats, stores or disposes of hazardous waste on-site must comply with the applicable standards and permit requirements set forth in 40 CFR, parts 264, 265, 266, 268, and 270.

Common Regulatory Citations at DoD Facilities

The following list summarizes recent major violations for which the U.S. Environmental Protection Agency (EPA) and various states have cited DoD federal installations:

- Operating a RCRA-regulated storage facility without notifying EPA or without obtaining a permit or interim status.
- Failing to conduct hazardous waste determination on drums of waste.
- Failing to label drums in the 90-day accumulation areas with the initial date of accumulation.
- Failing to label drums in 90-day accumulation areas as "hazardous waste."
- Failing to inspect 90-day accumulation areas at least weekly.
- Failing to maintain adequate aisle space.
- Storing leaking paint cans.
- Storing drums with unknown substances and storing drums with unknown substances next to drain.
- Failing to maintain adequate emergency equipment, such as fire extinguishers in storage areas.
- Submitting erroneous information on manifests.
- Failing to have adequate inspection program to detect leaking drums.
- Failing to keep lids on hazardous waste containers.
- Exceeding the allowable 55-gallon storage limit at an accumulation point.
- Failing to have required decontamination and communication equipment at a hazardous waste storage facility.
- Storing hazardous waste for more than 90 days without a permit.
- Failing to list job titles and names of employees on training records at storage site.
- Storing incompatible waste together.
- Failing to keep operating records at storage site.
- Failing to have a waste analysis plan.
- Failing to submit Pollution Prevention Plan, as required by permit.
- Failing to conduct quarterly groundwater monitoring.

National Environmental Policy Act of 1969

The National Environmental Policy Act of 1969 (NEPA) affects virtually every proposed action on the installation. Army Regulation 200-2 (Environmental Effects of Army Actions) is the Army's implementing regulation for the NEPA.

What Is It?

NEPA is our basic national charter for the protection of the environment. It declares that the Federal government will use all practicable means and measures to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans.

NEPA contains "action-forcing provisions" that require Federal agencies to consider the environmental impacts of their actions before they are implemented, document those considerations, and involve the public in their planning process.

Executive Order 12114 addresses the environmental effects of major Federal actions abroad. The purpose of the order is to establish internal procedures for Federal agencies to consider the significant effects on their actions on the environment of the global commons and foreign nations.

Current Regulations

The Council on Environmental Quality (CEQ) is responsible for issuing regulations implementing the provisions of NEPA. In the first phase of the NEPA process, the lead Federal agency proposing the action conducts an environmental review of the proposed action to determine whether significant environmental impacts are anticipated and whether changes can be made to the proposed action to eliminate these impacts. An environmental review determines whether a proposed action can be exempted from the environmental documentation process, or whether an environmental assessment (EA) or environmental impact statement (EIS) must be prepared.

If an EA is required, and the outcome indicates that no significant environmental impacts are anticipated, a Finding of No Significant Impact (FNSI) is distributed for public comment.

If significant impacts are possible, an EIS must be prepared and filed with EPA. Conditions which would prompt the preparation of an EIS might include: land use changes, adverse effects on wetlands, actions affecting threatened or endangered species or their habitats, or actions adversely affecting a floodplain, parklands, recreational areas or important farmlands.

The EIS process provides for involvement by the public and other agencies in the decision making process by informing individuals of the environmental consequences of the proposed action, providing the opportunity to present comments, and possibly assisting in developing alternatives to the proposed action.

The Army's Program

Objectives...

- Ensure the wise use of natural resources on Army lands by matching military mission activities with the ecological compatibility of the land and natural resources;
- Integrate environmental considerations into the decision making process;
- Avoid mission delays by identifying and planning for environmental requirements which will apply to mission activities;

Commanders should...

- Monitor proposed actions and ensure that appropriate environmental documentation is prepared;
- Consider environmental impacts of alternatives before making a decision;
- Ensure that adopted mitigation measures are adequately implemented;
- Ensure that the public and interested agencies have adequate opportunity to participate in the planning process and environmental analysis.

References

AR 200-2, Environmental Effects of Army Actions, December 1988.

40 Code of Federal Regulations (CFR) Parts 1500-1508 Council on Environmental Quality Regulations.

Resourcing, Documenting, and Reporting

There are numerous reporting requirements specified by Federal environmental regulations as well as Army/DOD requirements. The Federal environmental reporting requirements outlined previously are briefly detailed below. The two principal Army/DOD reporting requirements are known as the 1383 Report, and the Army Compliance Tracking System (ACTS). The Office of the Director of Environmental Programs manages these two reporting processes.

The 1383 Report

may be thought of as an 8-year environmental master plan, documenting the status of existing environmental projects, and identifying funding requirements for future environmental projects. This report is named for the report control symbol (RCS) which it has been assigned [RCS DD-P&L (SA) 1383]. The basis for this process is described in Office of Management and Budget (OMB) Circular A-106, "Reporting Requirements in Connection with the Prevention, Control, and Abatement of Environmental Pollution at Existing Federal Facilities," dated December 31, 1974. The 1383 Report is submitted to the Headquarters, Department of the Army semi-annually. The 1383 database is used to generate the A-106 Report to the EPA and OMB. The A-106 Report becomes the official Federal facilities environmental compliance report which accompanies the President's budget request to Congress.

All 1383-identified requirements must also be submitted separately in your Command Operating Budget (COB).

Information compiled in the 1383 Report is used directly to identify funding requirements for environmental compliance and restoration projects and programs. Funding for Installation Restoration Program (IRP) activities is provided through the Defense Environmental Restoration Account (DERA). DERA is discussed in the IRP section of Supplementary Reading. Funding for restorations at Base Closure installations is provided through the Base Realignment and Closure (BRAC) account. BRAC is discussed in the Real Property Transactions and Base Closure section of the Supplementary Reading.

The Army Compliance Tracking System (ACTS)

Since the early 1970's, DOD has, on an annual basis, required that selected data covering environmental management be reported. The first report was the RCS-1485 Report, entitled the Defense Environmental Status Report. This was a manual report until the late 1980's, when it was automated. In 1989, DOD significantly expanded their need for data and established a new title for the report, Defense Environmental Management Information System (DEMIS). This report remained a manual effort.

The DEMIS Report was expanded and automated in 1992 and is now called the Army Compliance Tracking System (ACTS). ACTS provides the Army with information on the status of environmental programs at Army facilities and activities. ACTS produces quarterly reports of environmental compliance data and annual reports of natural resources management related information.

The Federal Facility Docket...

The Federal Facility Docket was established by a provision of SARA, the 1986 amendments to CERCLA. In SARA, the docket is officially titled the Federal Agency Hazardous Waste Compliance Docket. The purpose of the docket is to identify and retain information concerning Federal facilities which manage hazardous waste or may be contaminated with hazardous substances. After being listed on the docket, the facility has 18 months to perform a preliminary assessment (PA) to determine if additional site investigations and cleanup may be warranted.

Data Management

As you may imagine, large quantities of chemical, geological, and technical data are generated in the effort to manage compliance with environmental regulations. Managing these data to facilitate efficient storage and rapid retrieval is not only advantageous, but can also be required under specific regulations. An environmental data management system is being developed for the Army to support the total environmental program. This system, called the Army Automated Environmental Management Information System (AAEMIS) will provide Major Army Commands (MACOMs), installations and other activities with an integrated series of automated (computerized) information and tracking tools. The four main aspects of AAEMIS that are being managed by USAEC are to:

- Compile information obtained from the 1383 Reports;
- Develop annual environmental compliance work plans;
- Compile information from the ACTS; and
- Develop a database to track environmental compliance for Army operations.

A second data management effort is the compilation of chemical, geotechnical, and cartographic information accumulated during environmental studies at Army installations. Called the Installation Restoration Data Management Information System (IRDMIS), the data are compiled and managed at USAEC.

References

A general reference for the 1383 Report and the A-106 process was developed in 1988 in the Office of the Deputy Assistant Secretary of Defense (Environment): "Federal Agency Pollution Abatement Plan (OMB A-106), A Handbook for Understanding the OMB A-106 Process."

Air Emissions Management

What Is It?

Maintenance of good air quality on an installation provides direct economic and health benefits to the on and off-post population. Air quality management entails the prevention and control of emissions from installation sources.

Sources of air pollution emissions at installations include: heat/steam/energy production; petroleum product storage; graphic arts; degreasing operations; surface coating operations; firing ranges; waste disposal (e.g. incineration); dry cleaning operations; training activities; and many more sources.

Current Regulations

The Clean Air Act Amendments of 1990 (CAAA-90) represent the most recent legislation for the control of air pollution in the United States. These amendments are the first significant revisions to the Clean Air Act in 13 years. The new statute strengthens and broadens earlier legislation by setting specific goals and timetables for reducing urban smog, airborne toxins, acid rain, and stratospheric ozone depletion over the next decade and beyond. The EPA and state agencies are now in the process of developing and establishing the many regulations necessary to implement these new initiatives.

Those industries most heavily affected by the new Amendments are automobile manufacturers, oil refineries, chemical plants, steel plants, furniture manufacturers, and the electric utility companies. While Army installations are not prime targets of this legislation, they often contain many elements of targeted facilities, and consequently, are faced with future significant increases in the cost of doing business.

CAAA-90 contains seven major titles that address various aspects of the National Air Pollution Control Program. These titles are:

Title I	Attainment and Maintenance of National Ambient Air Quality Standards
Title II	Mobile Sources
Title III	Hazardous Air Pollutants
Title IV	Acid Deposition Control
Title V	Permits
Title VI	Stratospheric Ozone Protection
Title VII	Enforcement

Major impacts on Army installations come from Titles I (Attainment), III (Hazardous Air Pollutants), V (Permits), and VII (Enforcement).

TITLE I - AIR QUALITY. Title I mandates technology-based emissions control for new and existing major air pollution sources. Title I also describes air pollution control requirements for geographic areas in the United States which fail to meet the National Ambient Air Quality Standards (NAAQS). The NAAQS are maximum concentrations of ozone, carbon monoxide, sulfur dioxide, nitrogen dioxide, inhalable particulate matter, and lead allowable in ambient air. Title I requires new types of emission controls in areas which fail to meet the ozone, carbon monoxide, and inhalable particulate matter NAAQS. Since ozone is currently the most pervasive nonattainment pollutant in the United States, most of Title I is directed at controlling pollutant emissions which contribute to ground-level ozone formation [i.e., volatile organic compounds (VOCs) and nitrogen oxides (Nox)].

IMPACTS: Military VOC sources typically affected by Title I include fuel storage and dispensing facilities, spray painting/coating lines, organic solvent degreasing operations, and dry cleaners. Affected military unique Nox sources include most types of combustion processes, such as open burning/open detonation sites, engine test cells, hazardous/municipal/medical waste incinerators, and fossil-fuel-fired steam/hot water boilers. Major requirements involve the preparation of emission inventories for regulated sources and acquisition of emission control equipment for newly defined major sources of VOCs and Nox. New operations in non-attainment areas must demonstrate that they will not have a negative impact on the goals or purpose of the State Implementation Plan.

TITLE III - HAZARDOUS AIR POLLUTANTS. Title III also mandates technology-based emissions control for new and existing major air pollution sources. It is potentially the most pervasive and costly requirement of CAA-90. The major elements of this Title deal with control of hazardous air pollutants (HAPs) from certain source categories and contingency planning for accidental releases of hazardous substances.

IMPACTS: Affected HAP sources have to make process modifications and/or install control equipment to limit emissions and comply with maximum available control technology (MACT). Most of the VOC sources listed under Title I impacts, above are also affected by Title III requirements. Emission levels have to be verified in a regulatory acceptable manner and quantified by either continuous emission monitoring, stack sampling, or estimation using EPA-approved emission factors.

TITLE V - PERMITS. Title V establishes a new permit program for air pollution sources which is enforceable on a nationwide basis. The goal of Title V is to have states issue Federally enforceable operating permits for applicable stationary sources. The permits are designed to enhance the ability of EPA, State regulatory agencies, and private citizens to enforce the requirements of CAA-90. Permits will clarify operating and control requirements for affected stationary sources.

IMPACTS: Army installations with affected sources have to prepare detailed permit applications. Compliance Plans, which quantitatively demonstrate compliance with emission standards, will accompany each permit

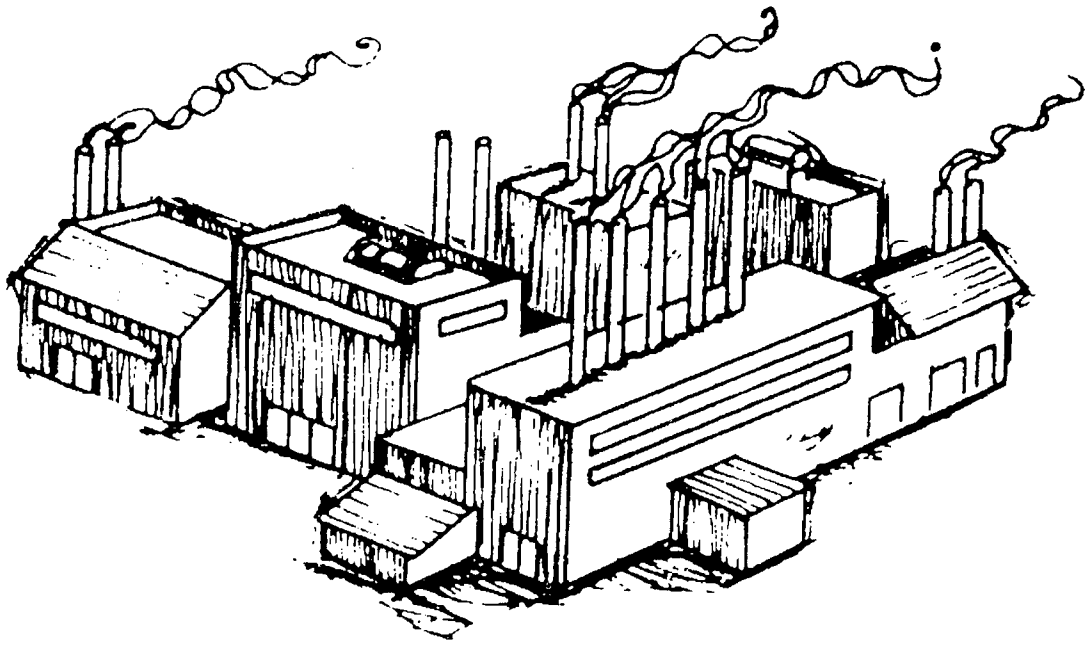
application. Failure to comply with any aspect of the Compliance Plan or permit can be grounds for enforcement action. Army installations must pay annual permit fees that are based on the level of air pollutants emitted.

TITLE VII - ENFORCEMENT. Title VII describes civil and criminal penalties which may be imposed for violation of new and existing air pollution control requirements. This Title almost completely replaces existing provisions of the Clean Air Act Amendments of 1977. New enforcement actions include higher maximum fines and terms of imprisonment. Some violations which were previously misdemeanors are now felonies, with liability targeted at senior management rather than operators.

IMPACTS: Failure to comply with either administrative or substantive air quality requirements may be costly. The EPA may write "traffic tickets" assessing penalties of up to $5,000 per violation during a routine inspection. Administrative violations, such as inaccurate or out-of-date permit data are also grounds for enforcement action. Enforcement efforts are specifically directed at management to compel regulated entities to plan ahead and allocate appropriate resources. Lack of "hands-on" involvement with a violation is no longer a viable defense.

Additional impacts will result from Titles II (Mobile Sources) and VI (Ozone Protection).

TITLE II - MOBILE SOURCES. Title II deals mostly with emissions control for motor vehicles in the form of tailpipe standards, use of clean fuels, and mandatory acquisition of clean-fuel vehicles. These requirements compel automobile manufacturers to improve design standards to limit



carbon monoxide, hydrocarbon, and Nox emissions. Manufacturers must also investigate feasibility of onboard canisters to control refueling emissions. Reformulated and oxygenated gasolines will be required in cities with worst ozone and carbon monoxide nonattainment.

IMPACTS: Army installations in affected nonattainment areas must begin to procure clean-fuel vehicles as of the 1998 model year. These vehicles must use clean alternative fuels when operating in affected areas. Clean alternative fuels include methanol, ethanol, reformulated gasoline, natural gas, liquified petroleum gas, and electricity.

Non-tactical fleet vehicles used in nonattainment areas must be included in Inspection and Maintenance (I&M) programs. Such programs generally have an annual inspection requirement which can be enforced through denial of vehicle registrations. Army installations may also be required to implement a program to verify I&M participation for employees' privately owned vehicles.

TITLE VI - STRATOSPHERIC OZONE PROTECTION. Title VI restricts production and use of chlorofluorocarbons (CFC), halons, and other halogenated solvents which when released to the atmosphere contribute to the decomposition of stratospheric ozone. Title VI requirements closely follow control strategies recommended in June 1990 at the 2nd Meeting of Parties to the Montreal Protocol.

IMPACTS: Consumption bans most important to Army installations will be carbon tetrachloride and methyl chloroform which are used for metal parts degreasing, and CFC-113 which is used for precision cleaning of electronic devices and circuit boards. Substitute products must meet end-use specifications and EPA stratospheric ozone preservation criteria. Consumption bans on motor vehicle/ appliance refrigerants (CFC-12, HCFC-22) and fire suppressants (halons) are also important, but potentially less problematic, since acceptable commercial substitutes should be developed for this market.

TITLES IV - ACID RAIN. Title IV has limited or no impact on Army activities. However, acid rain is a major environmental issue in the United States and Canada, as well as several other regions around the world. Acidification of lakes, destruction of forest, and increased weathering of exposed materials are some of the effects of this pollutant. The cause of acid rain is believed to be sulfur dioxide emissions from burning fossil fuels and emissions of Nox from vehicles. The primary targets of this legislation are the very large electric utility companies which are typically the major sources of precursor elements that form acid rain.

IMPACT: The only expected impact to Army installations is a gradual increase in electricity costs over the next two decades.

STATE REGULATIONS

State regulatory agencies have the major role in the management of the air quality program. Facets of state air pollution management programs include development of State Implementation Plans (SIPs), permitting of stationary sources, development of regulations for air toxins emissions, and vehicle I&M programs. Since state regulations applicable to installation activities can frequently be more detailed and encompassing than Federal regulations, it is important that your installation environmental staff be fully knowledgeable of state air quality and emissions regulations.

The Army's Program

Objectives...

- Identify, inventory and monitor air pollutant emissions and ambient air quality;
- Reduce pollutants to regulatory levels to protect health and reduce permit costs;
- Procure control equipment that meets regulatory standards; and
- Ensure design and operation of military equipment are in accordance with regulations.

Commanders should...

- Identify, monitor, and maintain an up-to-date inventory of emission sources;
- Obtain permits and provide reports for emission sources as required by regulations;
- Participate in the air pollution regulatory development process;
- Maintain programs to train air emissions management personnel;
- Conduct motor vehicle I&M to ensure regulatory compliance; and
- Notify MACOM immediately whenever a notice of violation (NOV) is received.

References

AR 200-1, "Environmental Protection and Enhancement," Chapter 4, April 1990.

AR 420-49, "Heating, Energy Selection and Fuel Storage, Distribution, and Dispensing Systems," June 1990.

DoD Directive 6050.9, "Chlorofluorocarbons (CFCs) and Halons," February 1989.

The Clean Air Act regulations are presented in Title 40 CFR, Parts 50-87.

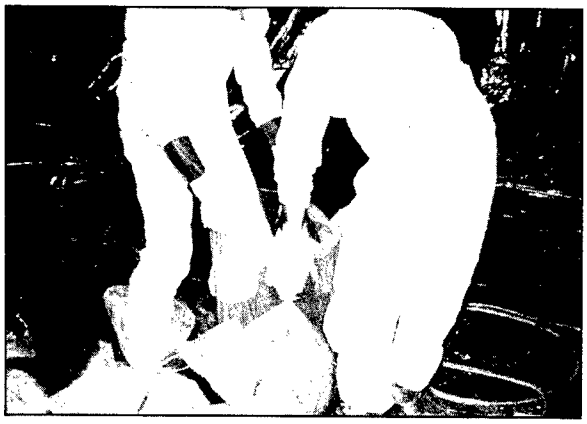
AR 40-5, "Preventive Medicine," Chapter 11, August 1986.

USATHAMA Report, "An Updated Assessment of Potential Cost Impacts of the Clean Air Act Amendments of 1990 on U.S. Army Facilities (CONUS)," December 1990.

USAEHA Report, "Summary of the Clean Air Act Amendments of 1990," Titles I, II, III, V, VI, and VII, 4 April 1991.

Asbestos

What Is It?



Asbestos is the name for a group of natural minerals that separate into strong, very fine fibers which are heat-resistant and extremely durable. Asbestos has been used in a variety of forms including use for thermal, acoustical and decorative purposes, and to insulate boilers, pipes, and many construction materials and appliances.

Asbestos becomes a health hazard when it degrades into microscopic fibers. This can happen when asbestos material is crumbled, and is known as "friable" asbestos.

Once emitted to the atmosphere, these fibers can remain suspended in the air for long periods of time and can easily lodge in body tissues when inhaled. Inhalation of asbestos fibers is known to cause asbestosis, a chronic disease of the lungs which makes breathing progressively more difficult, and mesothelioma, a cancer of the chest and abdominal membranes. Other cancers, primarily of the digestive tract and lungs, have also been associated with exposure to asbestos.

Current Regulations

Several Federal agencies are charged with regulating asbestos products and wastes.

The Occupational Safety and Health Administration (OSHA) sets limits for worker exposure on the job.

The Consumer Product Safety Commission (CPSC) regulates asbestos in consumer products and has banned the use of asbestos in dry-wall patching compounds, ceramic logs, and clothing.

The EPA regulates the management and disposal of asbestos-containing wastes and has set deadlines for elimination of asbestos in certain products such as water distribution pipes and building products.

Through National Emissions Standards for Hazardous Air Pollutants (NESHAP), EPA requires prework notices and specific work practices to be used during demolition and renovation operations involving asbestos materials. Additionally, the Asbestos Hazard Emergency Response Act, signed into law on October 22, 1986, and last amended in November

1990, requires EPA to study the extent of danger to human health posed by asbestos in public and commercial buildings and the means to response to any such danger. Buildings most likely to contain friable asbestos are those built or remodeled between 1945 and 1978.

The Hazardous Materials Transportation Act was amended in 1978 to regulate the transport of asbestos materials. These regulations are contained in 49 CFR 172-177. Asbestos must be loaded, handled, and unloaded in a manner that will minimize occupational exposure to airborne asbestos.

Many states and local governments have enacted standards more stringent than the federal requirements for certification of asbestos workers and disposal of asbestos waste. If your installation is engaging in removing or disposing of asbestos, contact the appropriate state and local agencies.

The Army's Program

Objectives...

- Minimize environmental release and occupational and incidental exposure;
- Exclude asbestos from procurements and uses where asbestos-free substitutes exist;
- Handle, store, transport, and dispose of asbestos in compliance with regulations;
- Develop and maintain an inventory of all asbestos in Army structures and determine the potential for human exposure;
- In areas known to have asbestos, implement a program to minimize exposure until abatement is accomplished;
- Minimize occupational exposure to ensure regulatory compliance;
- Maintain a nonoccupational environment safe from exposure; and
- Execute an Asbestos Management Plan in support of Army/MACOM policy.

Commanders should...

- Establish an Installation Asbestos Management Team to prepare and execute the Installation Asbestos Management Plan;
- Perform and update asbestos surveys;
- Annotate master planning documents and drawings to indicate real property containing asbestos; and
- Notify MACOM whenever an NOV is received.

References

AR 200-1, "Environmental Protection and Enhancement," Chapter 10, April 1990.

AR 385-10, The Army Safety Program.

AR 405-90, Disposal of Real Estate.

Medical Technical Bulletin (TBMED) 513, "Guidelines for the Evaluation and Control of Asbestos Exposure," December 1986.

The Federal asbestos regulations are contained in Title 40 CFR Parts 61 and 763. The OSHA standard, which limits occupational exposure to asbestos, is contained in Title 29 CFR Part 1926 and Title 29 CFR Part 1910.

Several guidance documents are available from EPA to aid individuals responsible for asbestos management or abatement. These documents include:

- Guidance for Controlling Asbestos-Containing Materials in Buildings. EPA 560/5-85-024, June 1985.
- Draft USAEHA Technical Guide (TG) No. 157, "Installation Asbestos Management Program Guidance."
- Asbestos in Buildings: Simplified Sampling Scheme for Friable Surfacing Materials. EPA 560/5-85-029A, October 1985.
- Asbestos in Buildings Guidance for Service and Maintenance Personnel. EPA 560/5-85-018, July 1985.
- Asbestos Waste Management Guidance Generation, Transport and Disposal. EPA 530-SW-007, May 1985.

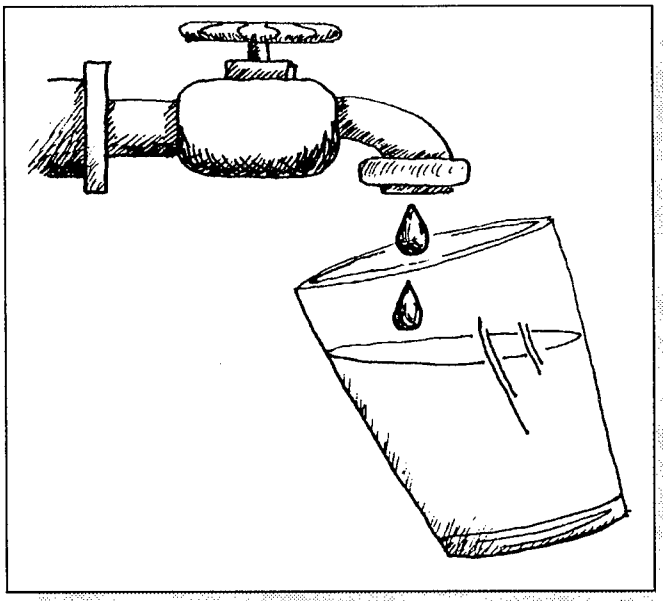
In addition, EPA has an Asbestos Hotline (202-554-1404) that provides guidance and technical advice.

Drinking Water

What Is It?

Drinking water is obtained from two general sources. Approximately half of the United States drinking water is derived from rivers, streams, and other forms of "surface" water. The other half comes from reserves of underground water known as "aquifers."

The quality of ground and surface water supplies is a function of geography as well as the effects of human activity. Natural contaminants include suspended matter, microbiological organisms, sulfates, chlorides, nitrates, fluoride, and radionuclides. Fortunately, modern technology can manage and/or remove these natural contaminants from drinking water.



In addition to natural pollutants, there are over 60,000 possible manmade drinking water contaminants. These chemicals are used by both industry and agriculture and range from solvents to pesticides. When these chemicals are used or discarded improperly, they can pollute ground and surface waters in turn contaminating drinking water. Additionally, disinfectants used at water treatment plants to purify drinking water can also create potentially hazardous by-products. Chlorine, the standard chemical used in the United States to remove bacteria from raw water supplies, can react with natural and man-made chemicals in the water to form undesirable by-products known as trihalomethanes.

Drinking water is piped from treatment plants to consumers via water distribution systems where it can potentially become contaminated by corrosion by-products from rusting pipes and by lead from lead-soldered pipes. It is important that water distribution systems not contribute contamination to purified drinking water.

Current Regulations

The SDWA of 1974, as amended in 1986, requires EPA to set primary drinking water regulations for any pollutants that may have an adverse effect on human health. There are currently 79 pollutants for which EPA

has set primary drinking water standards in the form of action levels, treatment techniques, or maximum contaminant levels (MCLs): 54 organic chemicals, 17 inorganic chemicals, turbidity, four radionuclides, and five microbiological contaminants. The SDWA also imposed restrictions on the use of lead in drinking water distribution systems. The Lead Contamination Control Act of 1988 requires states to develop lead monitoring programs for school, day care, hospital and housing drinking water systems. The EPA has also proposed national drinking water standards that would require monitoring of all drinking water supplies for lead and copper.

EPA has developed secondary MCLs to control 15 contaminants in drinking water that primarily affect the aesthetic qualities relating to public acceptance of water. These contaminants include chloride, iron, and pH. The secondary regulations are not federally enforceable, but are intended as guidelines for state regulatory agencies. However, some states consider the secondary MCLs as enforceable requirements in the same way that primary MCLs are enforced. Therefore, it is very important that your installation environmental staff determine if the state enforces the secondary MCLs.

Managers of water supply systems are required to regularly analyze treated water to ensure that the MCLs are met. Water suppliers must also notify their customers whenever water quality does not meet the recommended limits.

The Army's Program

Objectives...

- Conserve all water resources through implementation of water conservation plans, and
- Provide drinking water that meets all regulatory standards.

Commanders should...

- Provide adequate supplies of drinking water which meet all applicable standards;
- Develop and maintain sampling and analysis programs to ensure compliance with regulations; provide copies of regulatory required chemical analyses data to the U.S. Army Environmental Hygiene Agency (USAEHA);
- Ensure treatment facility operators obtain required certifications;
- Obtain permits for new or modified drinking water facilities;
- Notify the MACOM when new permits are received and new regulations are proposed or issued which will require modification of existing treatment facilities; and
- Submit copies of NOVs to the MACOM.

References

AR 200-1, "Environmental Protection and Enhancement," Chapter 3, April 1990.

AR 420-46, "Water and Sewage," May 1992.

TB MED 576, "Sanitary Control and Surveillance of Water Supplies at Fixed Installations," March 1982.

USAEHA TG No. 179, "Drinking Water Regulations Under the Safe Drinking Water Act." April 1990.

The National Primary and Secondary Drinking Water Regulations are contained in Title 40 CFR Parts 141 and 143. Regulations and public documents for the Water Program are included in Title 40 CFR Parts 104 through 149.

Energy Policy Act of 1992, Public Law 102-486. The Energy Policy Act of 1992 requires Federal facilities to install water conservation measures with a payback period of less that 10 years, to the maximum extent practicable.

EPA has produced a helpful pamphlet available from your Federal Facility Coordinator entitled: "You and Your Drinking Water", December 1986.

TM 5-660, "Maintenance and Operation of Water Supply, Treatment, and Distribution Systems."

Emergency Planning and Community Right-to-Know

What Is It?

In response to growing concern regarding the effects of toxic and hazardous substances on humans and the environment, it has become necessary to develop a mechanism to inform potentially-affected populations of the types and quantities of hazardous materials which are present in living and work places. This mechanism will allow each individual to judge the potential personal risk resulting from living or working in a specific area and will allow for effective emergency procedures in the event of a spill or other uncontrolled release of hazardous materials.

Current Regulations

In November 1986, Congress passed the Emergency Planning and Community Right-to-Know Act (EPCRA). This Act is also known as SARA Title III. The two main purposes of EPCRA are to encourage and support emergency planning for responding to chemical accidents and to provide local governments and the public with information about possible chemical hazards in their communities.

Local communities and states have the basic responsibility for understanding, managing, and reducing risks posed by chemicals at the local level, and for dealing with emergencies within their communities.

Public and private facilities are responsible for gathering information on the chemicals it uses, stores, and releases into the environment and providing the information to government agencies and local communities; and for helping set up procedures to handle chemical emergencies.

At the Federal level, EPA is responsible for ensuring that industry complies with the law's requirements, the public has access to information on

annual toxic chemical releases, and the information is used in various EPA programs to protect the nation's air, water, and soil.

EPCRA requires states to:

- Establish a State Emergency Response Commission (SERC) to supervise and coordinate emergency planning within the state.
- Designate Local Emergency Planning Committees (LEPCs) to facilitate preparation and implementation of emergency plans.

EPCRA requires individuals, firms, municipalities and states (with designated hazardous substances at their facilities in an amount in excess of established limits) to:

- Notify the SERC, LEPC, EPA and local fire department of the presence of certain hazardous substances in quantities above specified levels.

- Immediately notify the LEPC and SERC when any release into the environment beyond the facility boundary occurs of hazardous substances in quantities greater than established levels.
- Prepare an annual report detailing the amounts of hazardous materials released (through accident or through normal operations) and amounts transported as waste to another location.

Executive Order 12856, "Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements," 3 August 1993, extends the application of EPCRA to federal facilities.

EO 12856 requires the heads of federal agencies to develop a written pollution prevention strategy for their agencies by the end of 1995. Each Federal agency will also develop voluntary goals to reduce the agency's total release of toxic chemicals to the environment. Off-site transport of such chemicals for treatment and disposal are publicly reported.

The Army's Program

Objectives...

- Comply with EPCRA and Executive Order 12856;
- Provide a representative to participate in the LEPC; and
- Maintain an emergency notification plan for release of regulated substances.

Commanders should...

- Account for the types and quantities of hazardous substances used and stored on the installation;
- Notify the National Response Center immediately if a hazardous substance is released in excess of or equal to a reportable quantity. Also notify the MACOM, LEPC, and SERC.

- Submit Material Safety Data Sheets (MSDS) to the LEPC and the fire department for hazardous chemicals handled in amounts above designated Threshold Planning Quantities;
- Designate an Army employee to represent you on the LEPC;
- Provide the LEPC, SERC, and local fire departments with the identity and amounts of chemicals present on-site and the storage conditions, locations, and hazards of these chemicals;
- Provide the designated state official and EPA headquarters with data on toxic chemical releases and transfers for the nation-wide Toxic Release Inventory Report.
- Ensure contractors comply with all requirements that apply to their operations on or for the installation; and
- Respond to requests by the LEPC for information concerning hazardous substances present on the installation.

References

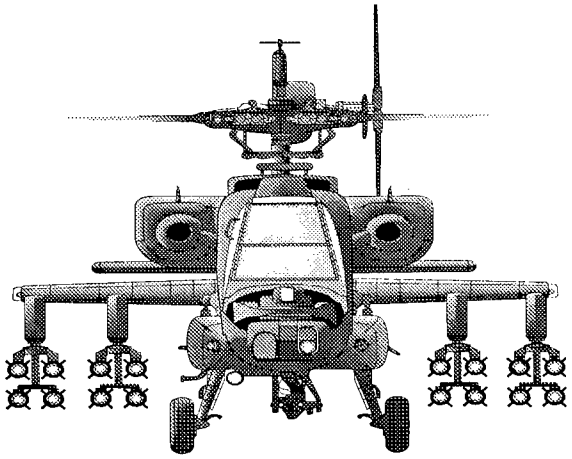
AR 200-1, "Environmental Protection and Enhancement," Chapter 8, April 1990.

Detailed information on the various provisions of the Emergency Planning and Community Right-to-Know Act are detailed in Title 40 CFR Parts 300, 350, 355, 370 and 372.

Environmental Noise

What Is It?

Noise is the phenomenon of sound waves moving through air in much the same way water waves travel on an undisturbed pond. Intensity of sound is commonly thought of as loudness and is measured in units called decibels (Db). A zero on the decibel scale represents the lowest limit of human audible perception; the level of normal conversation is approximately 60 Db. The Db scale is logarithmic which implies that as the Db level of sound increases by 10 units, the intensity or energy of the sound increases by a factor of 10. For instance, a Db value of 70 represents 10 times the energy of 60 Db.



Army generated noise may affect the health and work performance of Army military and civilian employees. Also, off-post civilian residents may be affected in their homes and places of work.

Current Regulations

In 1970, Congress passed the Noise Pollution and Abatement Act, which was chiefly responsible for investigating the affects of environmental noise on public health.

The Noise Control Act of 1972 set the goal of protecting all Americans from noise that jeopardizes their health and welfare. This legislation was designed to enable EPA to establish noise standards, and to regulate noise emissions from commercial products such as transportation and construction equipment.

The Quiet Communities Act of 1978 amended the Noise Control Act by providing state and local governments with funds to promote the development of noise control programs on a local level as long as the actions at the local level are consistent with Federal regulations. In this regard, numerous state and local governments have developed their own environmental noise regulations.

Keep in mind that these regulations and standards have been set for reasons other than direct threats to human health or hearing loss.

OSHA is responsible for establishing regulations and guidelines for workplace noise pollution. The OSHA noise standards are 90 dB(A scale) measured for a duration of 8 hours, time weighted average (TWA) 95 dBA for 4 hours, TWA and 100 DBA for 2 hours, TWA. Additionally, the OSHA standard for impulse noises is a maximum sound level of 140 DBA. The Surgeon General of the Army has set a noise standard for occupational exposure of 85 DBA for 8 hours, TWA.

The Army's Program

The Noise Control Act of 1972 exempts regulation of noises from military weapons or equipment which are designated for combat use. DOD, however, established a program designed to work with local communities on controlling land uses around military installations. This program is referred to as the Installation Compatible Use Zone (ICUZ) program.

Objectives...

- Assess the environmental impact of noise to be produced by proposed actions;
- Comply with Federal environmental noise regulations;
- Maintain an ICUZ program to ensure the installation mission is compatible with local land uses;
- Assess the effects of both on-post and off-post noise sources;
- Minimize environmental noise impacts through engineering, operational controls, siting, and procurement; and
- Reduce interior noise levels through architectural and engineering controls.

Commanders should...

- Develop noise zone maps for the installation's current and future peacetime activities;
- Conduct initial and follow-up ICUZ studies when necessary;
- Support local and state agencies in developing land use plans;
- Identify sources of noise creating an impact and budget for resources to lessen this impact;
- Establish a noise complaint procedure; and
- Establish an ICUZ committee.

References

AR 200-1, "Environmental Protection and Enhancement," Chapter 7, April 1990.

Technical Manual (TM) 5-803-2, Environmental Protection: Planning in the Noise Environment

The Federal regulations concerning noise abatement programs are contained in Title 40 CFR Parts 201 through 211.

General information concerning noise pollution can be found in the "Workbook for Managers' Environmental Course," published by the U.S. Army Logistics Management College (ALMC), Fort Lee, Va.; EPA brochure, "Information on Levels of Environmental Noise Requisite to Protect Health and Welfare with an Adequate Margin of Safety," March 1974,; and Federal Interagency Committee on Urban Noise, "Guidelines for Considering Noise in Land Use Planning and Control," June 1980.

Also, see Examination of Noise Management Approaches in the United States, Planning and Management Consultants, Ltd., 1988, and Report No. IWR-88-R-8, U.S. Army Corps of Engineers, Institute for Water Resources.

Federal Facility Compliance Act

What Is It?

The Federal Facility Compliance Act (FFCA), effective 7 October 1992, amends the Solid Waste Disposal Act. The FFCA waivers sovereign immunity with respect to federal, state, interstate, and local requirements; both substantive and procedural. This waiver includes all administrative orders, as well as civil and administrative penalties and fines. Under this waiver, the EPA or the state can levee fines or penalties against federal facilities for violations of the RCRA under subtitles C & D; which regulate hazardous waste and solid waste, respectively.

Current Regulations

The FFCA applies **only** to the hazardous and solid waste requirements under the RCRA. It does not apply to underground storage tanks or to any other environmental laws, such as the Clean Air Act or Clean Water Act.

In addition to waiving sovereign immunity with respect to fines and penalties, the FFCA also waives sovereign immunity with respect to the payment of reasonable service charges. Payment of service charges was already required of federal facilities under the RCRA, but the FFCA extends the waiver of sovereign immunity to include any "non-discriminatory" charges connected with the issuance of permits from a federal, state or local hazardous or solid waste regulatory program. The result of this expanded waiver is that any fees or charges which are normally assessed against both federal and non-federal entities must now be paid. In most cases, FFCA fines, penalties, and service charges are paid for out of the installation's Operation & Maintenance funds.

The FFCA requires the EPA to conduct annual hazardous waste inspections of treatment, storage and disposal facilities. The agency which owns the facility must reimburse the EPA for these inspections. Those states which have approved hazardous waste programs are also permitted to conduct inspections of TSDFs.

The Act also provides immunity for federal employees from civil liability for any acts or omissions contained within the scope of their official duties. Employees remain liable for criminal prosecution by the state or federal government.

One of the provisions of the FFCA is that Federally Owned Treatment Works (FOTWs) be treated more like their public counterparts, Publicly Owned Treatment Works (POTWs). This provision extends to FOTWs the "domestic sewage" exclusion which currently applies only to POTWs. This excludes from the definition of solid waste any suspended or dis-

solved materials contained in domestic sewage as long as certain listed conditions are met.

In general, the FFCA declares that federal facilities will now be held accountable for achieving and maintaining environmental compliance in the same fashion maintaining environmental compliance in the same fashion as non-federal entities are under the provisions of the RCRA. Again, installation Commanders should be aware that the FFCA authorizes the criminal prosecution of federal employees under federal and state solid and hazardous waste law. Installation Commanders, then, could be prosecuted for intentionally failing to comply with the provisions of RCRA.

The Army's Program

Objectives...

- Achieve environmental compliance at Army facilities in hazardous and solid waste.
- Maintain compliance in order to minimize adverse effects on the environment and to eliminate penalties incurred from the EPA and states.

Commanders Should..

- Supervise the hazardous and solid waste programs at the installations as required by AR 200-1 Chapter 6.
- Notify your MACOM immediately after receiving an NOV or compliance order. Consult with your facility's Environmental Law Specialist.

References

Federal Facility Compliance Act of 1992

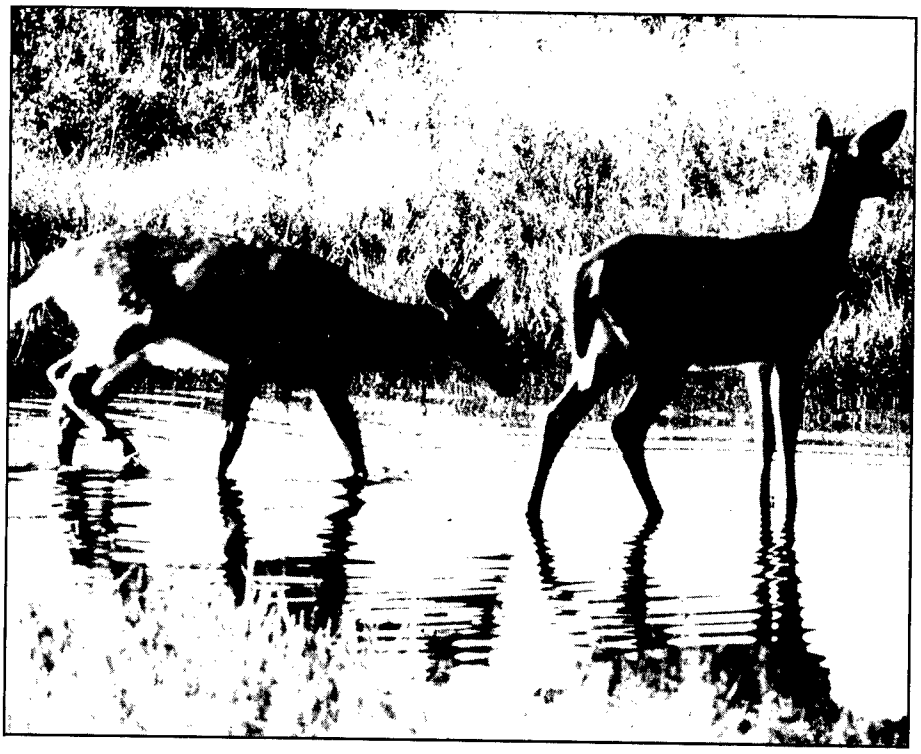
Fish and Wildlife Management

What Is It?

The Army's Fish and Wildlife Program includes fisheries management, management of game and non-game species, threatened and endangered species protection, urban wildlife management, fish and game law enforcement and control of problem animals. Emphasis is placed on the maintenance and restoration of habitat favorable to the production of indigenous species.

Current Regulations

The Sikes Act, as amended in November 1989, requires each military department to ensure that services are provided for proper fish and wildlife management and that priority is given to work with Federal and state agencies having responsibility for conservation or management of fish and wildlife. It further requires that installation fish and wildlife management be carried out in accordance with an Integrated Natural Resource Management Plan (INRMP) mutually agreed upon by the installation commander, the regional office of the U.S. Fish and Wildlife Service (FWS) and the state agency designated by the host state.



The Fish and Wildlife Program applies to all Army commands and personnel, and covers Army installations on United States soil that contain land and water areas suitable for conservation and management of fish and wildlife resources. The suitability of a military installation for fish and wildlife management shall be determined after consulting with the FWS and the state. Provisions for proper fish and wildlife management are described in AR 200-3.

The Army's Program

Objectives...

- Provide for the maintenance and enhancement of fish and wildlife resources in a manner which complies with current and accepted scientific practices and requirements of the military mission;
- Improve natural surroundings for personnel living and working on the installation;
- Provide for improved public relations and recreational opportunities and stimulate community support for the military presence; and
- Maintain compliance with all state and federal laws that pertain to the management of fish and wildlife resources.

Commanders should...

- Prepare and implement an INRMP in coordination with the appropriate state and Federal fish and wildlife conservation agencies and update not less than once every five years;
- Program funds to conduct an effective program pursuant to the INRMP;
- Require the optimum use and staffing of professionally trained personnel (e.g., wildlife manager); and
- Establish a Fish and Wildlife Law Enforcement Program to ensure all hunting, fishing and trapping regulations are followed.

References

AR 200-3, "Natural Resources — Land, Forest and Wildlife Management," Chapter 6, February 1995.

DOD Directive 4700.4, "Natural Resources Management Programs," January 24, 1989.

Title 16, United States Code (USC), Section 670 "Conservation on Military Installations (Sikes Act)" as amended.

16 USC 1531, "Endangered Species Act of 1973," as amended (October 1988).

Forest Management

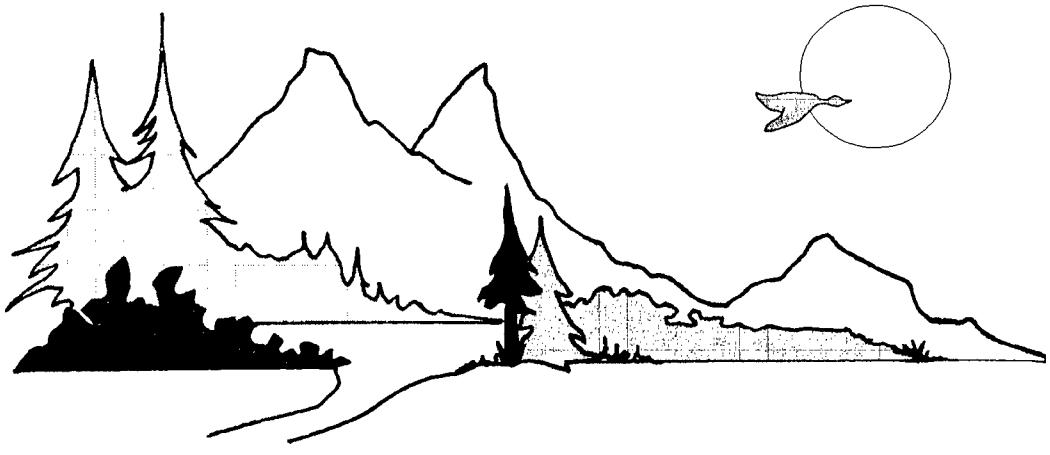
What Is It?

The Army's forest management activities are highly visible to the general public. Significant payback in terms of mission support and public relations are elements that a well planned, integrated and scientifically managed forest program can yield. Army policy provides for sustained yield timber management tailored to military mission requirements as the first priority. Additional benefits of an ecologically sound forest management program include natural beauty, recreation, improved wildlife habitat, increased wildlife populations, while protecting watersheds, cultural resources and endangered species.

Current Regulations

Originally as a part of the Defense Appropriations Act of 1961, Congress provided authority for the military departments to retain receipts from forest product sales that otherwise would be deposited in the miscellaneous receipts of the Treasury. Army timber sale receipts from the general forest products account may be used only to support the production and sale of forest products. This provision was codified in Title 10, USC, by the Military Construction Authorization Act of 1978.

Title 10, USC, Section 2665(e) was amended in 1982 to return 25 percent of net profits from installation timber sales to the states where the installations are located. This amendment provided that entitlement to the states may be used for the benefit of public schools and public roads. Congress amended Title 10, USC, Section 2665, again in 1984 to



increase entitlement to states from 25 to 40 percent. This amendment, Public Law 99-561 (Sikes Act), provides for surplus forest product sale receipts to be placed in a DOD Reserve Account which can be used for additional projects to support the forestry program at individual installations and natural resources projects other than forestry.

The Army's Program

Objectives...

- Maintain an integrated and ecologically sound forest management program tailored to on-going and proposed mission needs;
- Integrate Forest Management Plans and activities for compatibility and support for the Land, Outdoor Recreation, and Wildlife Management Plans;
- Practice professional standards of silviculture based on scientifically proven methods for timber species managed; and
- Manage the forest vegetation for maximum multiple use benefits.

Commanders should...

- Establish optimum staffing with the appropriately-trained personnel.
- Develop and implement a management plan that will provide maximum multiple-use benefits.

References

AR 200-3, "Natural Resources — Land, Forest and Wildlife Management," February 1995.

Title 10, USC, Section 2665, "The Military Construction Act of 1978."

DOD Directive 4700.4, "Natural Resources Management Program," 24 January 1989.

Hazardous Waste and Materials

What Are They?

The terms "hazardous waste," "hazardous material," and "hazardous substance" all have very specific legal and scientific definitions in Federal regulations. Collectively, the layperson may identify these chemicals using the vernacular term "toxic chemicals."

Current Regulations

Hazardous wastes are defined and regulated by the Resource Conservation and Recovery Act (RCRA) as amended by the Hazardous and Solid Waste Amendments (HSWA) of 1984. By RCRA, a waste is considered hazardous if it meets certain levels of reactivity, ignitability, corrosivity or toxicity, or is otherwise listed as a hazardous waste in Title 40 CFR Part 261. Currently there are about 450 listed wastes. In general, RCRA regulations address the day-to-day management of these wastes. In comparison, the cleanup of past waste disposal sites is principally regulated under CERCLA, as described under the Installation Restoration Program in the Supplementary Reading section. Hazardous waste regulations include very detailed and specific requirements for facilities which generate, transport, treat, store, or dispose of hazardous wastes.

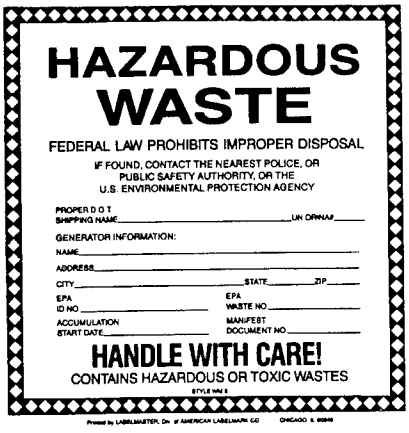
Treatment, storage, or disposal facilities are required to apply for operating permits; permitting of generators and transporters is not required in the Federal regulations but there are notices and other requirements that state regulations may identify as "permitting." However, transporters and generators must have EPA identification numbers.

The majority of RCRA regulated hazardous waste is produced by large quantity generators, defined as facilities which produce 1,000 kilograms or more of hazardous waste per month. A much smaller amount of waste is generated by small quantity generators; facilities producing more than 100 kilograms but less than 1,000 kilograms of hazardous waste per month. Wastes considered "acutely" hazardous are regulated at 1 kilogram per month. All generators, except conditionally exempt small quantity generators (generating less than 100 kilograms per month) must treat, store, or dispose of their wastes at RCRA permitted facilities.

Hazardous waste is typically taken off-site to commercial treatment and disposal facilities. Conditionally exempt small quantity generators who make delivery to an off-site facility must also ensure that the off-site treatment, storage or disposal facility is permitted, in interim status or otherwise regulated by state authorization. Typical treatment methods include

incineration, biological and chemical treatment, steamstripping, and solidification. All personnel involved in hazardous waste activities must receive annual training on safety and operational requirements.

Many of the provisions of the 1984 RCRA amendments had major impacts on hazardous waste management operations. The HSWA include provisions for regulation of underground storage tanks (USTs) which contain petroleum products or hazardous substances. These regulations include specific requirements for determining if tanks are leaking, measures to prevent leaks, and procedures by which contamination caused by leaking tanks must be cleaned up.

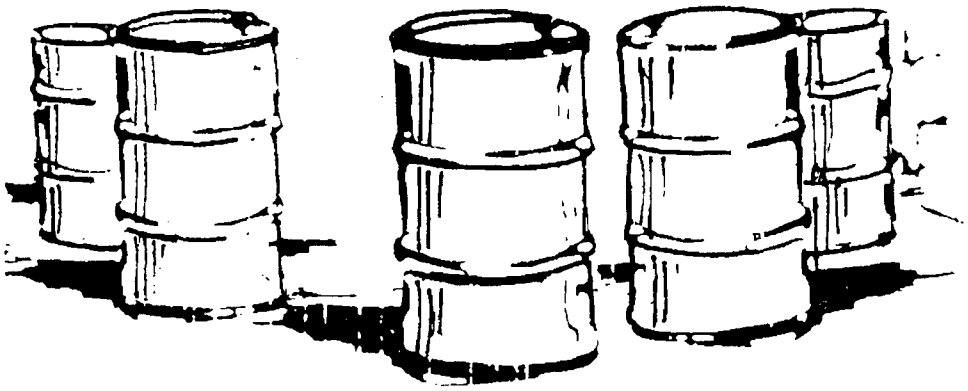


Hazardous materials are defined under the U.S. Department of Transportation (DOT) regulations (Title 49 CFR Parts 106 through 178) as chemicals which are determined by the Secretary of Transportation to present risks to safety, health, and property during transportation. The DOT regulations include requirements for shipping papers (manifests), package marking, labeling, and transport vehicle placarding. Specific sections addressing shipment by rail, aircraft, vessel, and public highway are contained in these Federal regulations.

Hazardous substances are defined by the CWA and CERCLA (also known as Superfund) as chemicals which are harmful to aquatic life or the environment and are regulated if spilled or otherwise released to the environment. EPA has designated "reportable quantities" for each of the hazardous substances. If more than the reportable quantity of a hazardous substance is released to the environment, you are required to clean up the spill and report it to the appropriate regulatory agency. Spills of oil and other petroleum products are also regulated under the CWA when spilled in areas where they will or eventually could enter waterways.

Others...

PCBs or polychlorinated biphenyls are also a major type of toxic chemical regulated by TSCA passed in 1976. PCBs are most commonly used in electrical transformer dielectric fluids. TSCA regulations include a ban



on the manufacture of PCBs in the United States in 1977 and close regulation of the use, storage, and disposal of PCBs, transformers, and PCB wastes.

Infectious Waste is defined by the EPA as any waste capable of producing infectious disease. Such waste is usually associated with medical or Health Care Facilities (HCF). Recent awareness of potential damage to human health and the environment has made infectious waste management an area of substantial concern.

Presently, while the Federal Government is contemplating regulations on infectious wastes, some state governments have enacted regulations and other states are in the process of doing so. Rather than reacting to these rapid changes, you as commander should implement proactive waste management programs. A useful tool in developing this program is TG No. 177 "Commander's Guide to Infectious Waste Management at Health Care Facilities," February 1990, which can be obtained from USAEHA, and the EPA Guide for Infectious Waste Management, 1986.

The Army's Program

Objectives...

Hazardous Materials

- Ensure best management practices for all hazardous materials;
- Comply with all applicable regulations;
- Use nonhazardous substitutes to the maximum extent practicable;
- Conserve resources through recovery, recycling and reuse; and
- Comply with TSCA provisions related to new chemicals and PCBs.

Hazardous Waste

- Ensure that all installations have Hazardous Waste Management Plans (HWMP) in place and that such plans are suited for the individual installation;
- Comply with all applicable hazardous waste regulations;
- Seek guidance for acceptable methods of discharge/disposal;
- Correct regulatory violations within the time allotted by the regulators;
- Provide hazardous waste management training to applicable personnel; and
- Minimize land disposal of wastes.

Oil and Hazardous Substances

- Comply with all applicable regulations;
- Manage and dispose of oil and hazardous substances in a safe and environmentally sound manner;
- Provide for prompt, coordinated response to contain and clean up spills;
- Cooperate with non-Army agencies to ensure protection from spills;

- Provide assistance, in accordance with the National Contingency Plan (NCP), to clean up spills not caused by Army activities, consistent with operational commitments; and
- Each installation with the capability for a release of a reportable quantity of oil or a hazardous substance must prepare and implement a Spill Prevention, Control, and Countermeasure Plan (SPCCP) and an ISCP.

Commanders should...

Hazardous Materials

- Supervise procurement and management of hazardous materials as required by AR 200-1, Chapter 6;
- Establish procedures to identify/correct management deficiencies; and
- Establish a training program and ensure that all involved personnel are properly trained.

Hazardous Waste Management Program

- Establish a HWMP to comply with hazardous waste regulations;
- Establish a Hazardous Waste Training Program and ensure proper training for personnel;
- Maintain liaison with the Defense Reutilization and Marketing Office (DRMO) to determine markets for materials and wastes;
- Maintain responsibility for hazardous waste management for all installation activities including tenants and sub-installations;
- Establish an Installation Environmental Quality Review Board and the Environmental Quality Control Committee;
- Ensure the environmental coordinator has sufficient support to carry out his/her function;
- Establish a program in hazardous waste minimization (HAZMIN);
- Ensure that there is a payment system in place for hazardous waste disposal costs; and
- Notify MACOM immediately of any NOVs.

Oil and Hazardous Substance Spill Planning

- Develop and implement SPCCPs and ISCPs;
- Update your SPCCP every two years;
- Perform inspections to verify compliance and test ISCPs;
- Comply with OSHA regulations for operations, medical surveillance and training of installation spill teams;
- Ensure proper materials management;
- Consult with the installation public affairs officer concerning reaction to spills;
- Budget for resources needed for emergency response;
- Determine if the Army facility can respond appropriately for off-post spills;
- Ensure reportable releases are reported to appropriate authorities;

- Appoint an Installation On-Scene Coordinator (IOSC) and an Installation Response Team (IRT); and
- Notify MACOM immediately if a spill occurs.

References

AR 200-1, "Environmental Protection and Enhancement," Chapters 5, 6, and 8, April 1990.

Standards for the tracking and management of medical waste are detailed in Title 40 CFR Part 259.

Hazardous waste regulations under RCRA are contained in Title 40 CFR Parts 260 through 281. The hazardous materials regulations under DOT are contained in Title 49 CFR Parts 106 through 178. Hazardous substance regulations under CERCLA are located in Title 40 CFR Parts 300 through 302. Oil spill rules, extremely hazardous substances, and PCB regulations under TSCA are detailed in Title 40 CFR Part 761.

OSHA training requirements which are vital to a proper hazardous waste/materials program are outlined in Title 29 CFR Part 1910.

TM 38-410, "Storage and Handling of Hazardous Material," May 1992.

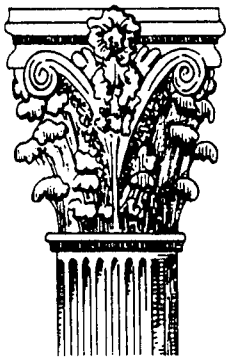
Historic and Archeological Resources

What Is It?

Many Army installations and facilities are rich in historical resources such as prehistoric and historic archeological sites, and historic buildings. These places represent a clear link to our past and are non renewable resources that enhance our lives.

Significant historic and archeological resources must be identified and evaluated, and a process must be developed to manage these resources to ensure our heritage is maintained. Policy and guidance is contained in AR 420-40.

Current Regulations



Congress padded the National Historic Preservation Act (NHPA) in 1966 to encourage federal agencies to administer historic and prehistoric resources in a spirit of stewardship and in harmony with the agencies' missions. The National Register of Historic Places determines the significance of districts, sites, buildings, structures, and objects in American history, architecture, engineering, archeology, and culture. Listed in or eligible for listing in the National Register are "historic properties."

Section 110 of the NHPA requires federal agencies to develop a program to locate, identify, evaluate, and nominate for listing in the National Register historic properties on federal lands. In addition, Section 106 of the NHPA requires that all federal land managers must consider the effect of federal undertakings upon historic properties, in consultation with the State Historic Preservation Officer, as set forth by 36 CFR 800: "Protection of Historic Properties." All undertakings that may affect on a National Historic Landmark or have an adverse effect on a historic property must be submitted for comment to the Advisory Council on Historic Preservation (ACHP). Failure to comply with these procedures can result in a finding of foreclosure by the ACHP, or in litigation, potentially forcing the land manager to stop the action or activities.

The Archeological Resources Protection Act of 1979 (ARPA) stipulates that anyone investigating archeological resources on federal lands must have a permit or be subject to civil or criminal penalties. Persons

requesting an ARPA permit should be directed to the local U.S. Army Corps of Engineers (USACE), District Engineer. Installation law enforcement personnel should be aware of archeological resources that need protection, and such sites should be monitored regularly.

The Native American Graves Protection and Repatriation Act of 1990 (NAGPRA) imposes several requirements on federal agencies. They must summarize and inventory any archeological collections that may contain cultural items as defined in NAGPRA and human remains. This information should be distributed to culturally affiliated federally recognized Native American tribes, Native Alaskan villages and corporations, and Native Hawaiian organizations. Federal agencies must respond expeditiously to requests for repatriation of NAGPRA materials by such Native American groups.

NAGPRA also requires consultation with tribes prior to excavation of Native American, Native Alaskan, or Native Hawaiian human remains or cultural items. Finally, any inadvertent discovery of human remains or cultural items must be followed with notice to the affiliated tribe and responsible agency manager, as well as a 30-day delay of activity in the area of the discovery.

The American Indian Religious Freedom Act of 1978 (AIRFA) establishes a policy of protecting Native American religious practices, and access to sacred sites on Federal lands. The Religious Freedom Restoration Act of 1993 (RFRA) states that no religious practice may be substantially burdened by federal action unless that action is the least restrictive means of furthering a compelling governmental interest. Commanders should work with Native Americans to protect access to sacred sites on installation lands, where possible to do so without significant impact to the mission. For instance, if a particular location within a training area has been identified as a site of particular religious importance to a Native American tribe, commanders may be able to divert training that would otherwise have damaged the physical or spiritual values of the site. The language of RFRA clearly requires an activity of fundamental importance to the nation, in order to justify burdening any individual's or group's religious practices.

On April 29, 1994, President Clinton issued a memorandum to the heads of executive departments and agencies, directing them to "operate within a government-to-government relationship with federally recognized tribal governments," and to "consult, to the greatest extent practicable ... with tribal governments prior to taking actions that affect federally recognized tribal governments." This government-to-government relationship imposes a burden on agencies to interact with tribal representatives respectfully, as agents of a sovereign entity, rather than as members of the interested public. Agencies may be required to actively seek out tribal comment on federal agency actions that may affect the tribes, instead of relying on the standard public notice process. This may involve actions as varied as attending a tribal council meeting to describe the installation's planning process or conducting tribal elders on a tour of the activity site.

The Army's Program

Objectives...

- Implement the NHPA;
- Develop a Cultural Resource Management Plan (CRMP) to locate, inventory, evaluate, and protect historic properties on the installation;
- Manage historic preservation requirements through a CRMP;
- Follow professional standards for Army preservation personnel and projects; and
- Accomplish the Cultural Resource Management Program in a timely and cost-effective manner;
- Enforce the protection of archeological resources under ARPA;
- Implement the requirements of NAGPRA;
- Avoid burdening Native American religious practices, under AIRFA and RFRA.

Commanders should...

- Provide qualified preservation expertise to develop and implement the CRMP;
- Become aware of the nature and extent of known historic properties;
- Coordinate planning processes with interested Native American tribes to comply with NHPA, ARPA, NAGPRA, and AIRFA/RFRA;
- Consult with non-Army preservation activities, as necessary;
- Ensure that the CRMP is coordinated with master planning and environmental programs;
- Plan to ensure operational activities avoid or minimize effects on historic properties;
- Identify and nominate, through command channels to the National Register of Historic Places, all properties that meet the National Register criteria; and
- Ensure that military police enforce archeological site protection laws.

References

Army Regulation (AR) 420-40: Historic Preservation (Department of the Army, 15 May 1984)

Army Technical Manual 5-801-1: Historic Preservation, Administrative Procedures

Army Technical Manual 5-801-2: Historic Preservation, Maintenance Procedures

36 CFR Part 60: National Register of Historic Places

36 CFR Part 800: Protection of Historic Properties

The Section 110 Guidelines: Guidelines for Federal Agency Responsibilities under Section 110 of the National Historic Preservation Act (53 FR 4727-4746)

The Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (48 FR 44716-42)

The Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (National Park Service, 1983)

Identification of Historical Properties: A Decisionmaking Guide for Managers (Advisory Council on Historic Preservation, 1988)

Public Participation in Section 106 Review: A Guide for Agency Officials (Advisory Council on Historic Preservation, 1989)

43 CFR Part 7 (32 CFR 229): Protection of Archaeological Resources

36 CFR Part 79: Curation of Federally Owned and Administered Archeological Collections

25 U.S.C. 3001 et seq., P.L. 101-601: The Native American Grave Protection and Repatriation Act of 1990.

P.L. 95-341, 42 U.S.C. 1996, as amended by P.L. 103-344: The American Indian Religious Freedom Act.

Archaeological Resources Protection Act of 1979 (ARPA), 16 U.S.C. 470aa-470ll.

Memorandum of April 29, 1994, Government-to-government Relations with Native American Tribal Governments, 59 Fed. Reg. 22951, Wednesday, May 4, 1994.

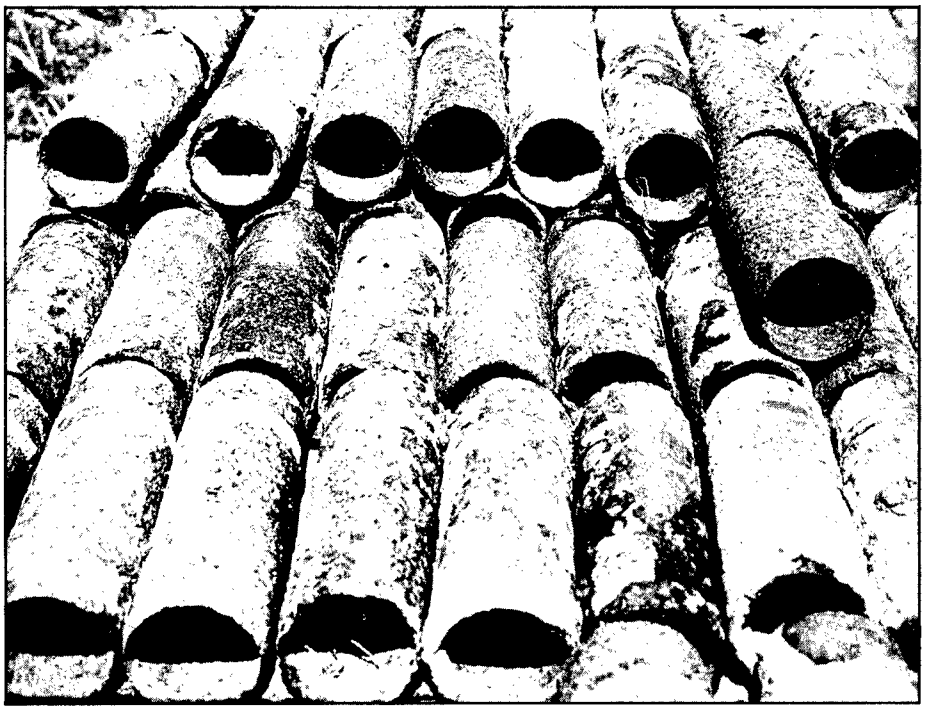
National Historic Preservation Act, 16 U.S.C. 470-470w-6, P.L.89-665, as amended by P.L. 96-515, Title XL of 102-575.

Installation Restoration Program

What Is It?

The Army's Installation Restoration Program (IRP) was established in 1975 to identify, investigate, and cleanup contamination on Army properties. The program is conducted under the auspices of the Defense Environmental Restoration Program (DERP) as established by SARA in 1986. The IRP process consists of these steps:

- **Preliminary Assessment/Site Inspection (PA/SI).** The goal of the PA/SI is to identify sites with potential hazardous waste contamination. The PA consists of a review of available historical information (also known as a records search) concerning installation activities and land use; the SI is an on-site visit designed to verify the preliminary findings of the PA. The SI frequently encompasses the collection of on-site samples to facilitate an initial screening of potential problem areas.
- **Remedial Investigation/Feasibility Study (RI/FS) and Record of Decision (ROD).** The RI is a detailed study that includes soil and water sampling to determine the nature and extent of contamination at a site. In addition, the RI includes a health assessment which estimates risks to human health and the environment as a result of the contamination. The purposes of the FS are to identify alternatives for remediation or cleanup of the site, and then recommend the preferred cleanup strategy. The preferred cleanup strategy is then presented to the regulators and the public in the proposed plan. Following approval of the



proposed plan a record of decision (ROD) that describes the remedy selection process and the remedy method selected is prepared.

- **Interim Response Action (IRA) and Remedial Action (RA).** RAs can include removing wastes from the site for off-post treatment or disposal, containing the waste on-site, or treating the waste on-site. IRAs, activities undertaken to address environmental contamination which should be remediated in the short term, may be conducted at any time during the IRP process. IRAs are always consistent with the final remedy selected in the ROD.

Current Regulations

The DERP is the Army equivalent to the EPA program developed as a result of a 1980 law: CERCLA/SARA, commonly known as Superfund. In fact, SARA of 1986 formally requires all investigation and cleanup activities at Army hazardous waste sites conducted under the DERP to comply with the procedural and substantive requirements of CERCLA. Funding for IRP activities is provided by the Defense Environmental Restoration Account (DERA). Under CERCLA/SARA, both private and Federal hazardous waste sites are to be prioritized for cleanup actions by being ranked on the EPA's National Priorities List (NPL). Under SARA, Congress established the Federal Agency Hazardous Waste Compliance Docket, also known as the Federal Facility Docket. The purposes of the Docket are to identify Federal facilities that must be evaluated for potential inclusion on the NPL and compile and maintain information on the cleanup status of these sites.

What it means to be on the NPL

The NPL, commonly known as the "Superfund List," is a compilation of private and Federal hazardous waste sites that EPA determined to need priority for action based on a release or potential for release of contaminants.

Once your installation is placed on the NPL, the Army prefers that you enter into an Interagency Agreement (IAG) as soon as possible. The IAG is a formal agreement between the EPA, the state, and the Army that establishes objectives, responsibilities, procedures, and schedules for remediation at each installation. DOD policy calls for IAGs to be negotiated as early as possible in the RI/FS process for all NPL and proposed NPL sites.

ACTIONS REQUIRED FOR NPL SITES

- Listing on NPL;
- Commence RI/FS within 6 months of placement on NPL, in consultation with EPA and state;
- Establish an IAG with EPA and the state for completion of RA within 180 days of ROD;
- EPA reviews RI/FS;
- Public notice and public meetings on proposed RA plan;
- ROD issued;

- Public notice of final RA plan selected;
- Begin "substantial continuous physical on-site RA" not later than 15 months after completion of RI/FS;
- Operation and maintenance of site; and
- Post closure monitoring of site.
- Non-NPL installations undergo the same process for investigation and cleanup but may be under state control.

Who's Involved?

You can expect to work with several Army agencies during implementation of the IRP at your installation.

- USAEC manages the environmental studies required in the PA/SI and RI/FS phases of the IRP. These studies are typically performed by private consultants under contract to and supervised by USAEC. USAEC also provides technical oversight of environmental cleanup actions at certain installations. Additional technical consultation may be obtained through the USACHPPM.
- Health risk assessments performed during the RI are reviewed by USACHPPM prior to required approval by the Army Surgeon General.
- USACE also conducts the SI and RI/FS phases of the IRP. The design and construction associated with cleanup of the Army's hazardous waste sites are the responsibility of the USACE. Selected Districts within each Corps Division have been designated for remedial design activities. Remedial action construction, in turn, is carried out by Corps of Engineers Districts in which the sites are located.

The Army's Program

Objectives...

- The identification, investigation, research and development, and cleanup of contamination from hazardous substances, pollutants and contaminants. The first priority is to identify and cleanup those sites that present the highest risk to public health and the environment;
- Correction of other environmental damage (such as detection or disposal of unexploded ordnance) which creates an imminent and substantial endangerment to the public health or welfare or to the environment; and
- Demolition and removal of unsafe buildings and structures, including buildings and structures of the DOD at sites formerly used by or under the jurisdiction of the Secretary.

Commanders should...

- Ensure that IRP activities are in compliance with regulations;
- Report major IRP developments and incidents to the MACOM;
- Report discovered releases first to the MACOM, then to appropriate regulatory agencies;

- Identify resources needed for compliance;
- Serve as the lead agency and assign an on-scene coordinator;
- Review response plans and recommendations for IRP actions in coordination with USAEC and the MACOM;
- Establish a Technical Review Committee or Restoration Advisory Board, as appropriate;
- Develop and maintain a community relations program; and
- Ensure that proposals for real property transactions are immediately reported through command channels to the Office of the Director of Environmental Programs.

References

AR 200-1, "Environmental Protection and Enhancement," Chapter 9, April 1990.

"Installation Restoration Management Guide," USAEC, December 1993.

USAEHA TG No. 180, "Health Risk Assessment Guide for the Installation Restoration Program and Formerly Used Defense Sites," June 1990.

CERCLA and SARA regulations are contained in Title 40 CFR, Parts 300 through 355, 370 and 372.

Land Management

What Is It?

Heavier and faster vehicles, longer combat engagement distances, and increases in mechanization and combined arms exercises have all made the need to maintain realistic training areas a crucial land management issue on most Army installations that conduct vehicle training maneuvers.

Environmental consideration and natural resources conservation are other issues which require having a well-developed land management plan as part of an installation's Natural and Cultural Resources Management Program. These issues must be dealt with to ensure that the Army maintains an effective level of combat readiness while promoting good stewardship of the land on which it trains.

When appropriate, land management plans should address soil and water conservation, wetlands and floodplains, grounds maintenance, agricultural uses, fire management, areas of special interest (such as encroachment) and management for multiple use. Land management must also reflect good economics. For instance, costs for maintaining grounds should be minimized by providing the least amount of mowed areas and special plantings necessary to accomplish management objectives and by the use of low maintenance species, agricultural outleases, wildlife habitat, and tree plantings.

Integrated Training Area Management (ITAM) was designed as a comprehensive approach to land management on all Army installations. It includes four major elements:

- **Land Condition Trend Analysis (LCTA)** — inventory and monitoring of natural resources, including threatened and endangered species, to document resource conditions and assess the ability of the land to withstand impacts from training and testing;
- **Environmental Awareness** — education of officers and enlisted troops to foster wise use of the land;

- **Land Rehabilitation and Maintenance (LRAM)** — revegetation and erosion control to restore the land and enhance testing and training realism; and
- **Training Requirements Integration** — optimization of land use by integrating mission requirements with the carrying capacity of the land.

All elements serve to support land management decisions on an installation.

ITAM program benefits include:

- increased training realism;
- reduced environmental damage and effective land rehabilitation;
- reduced costs for land management and environmental compliance; and
- enhanced public image of the Army as a conscientious land steward.

Current Regulations

Some major areas of concern that must be complied with in order to assure accomplishment of the Army mission and compliance with environmental requirements in the area of land management include:

- Soil conservation and maintenance of ground cover to stabilize soil and reduce erosion — as directed by Public Law 74-46, Soil Conservation;
- Provision of sediment control structures to ensure sediments do not enter streams or other water bodies — to maintain training grounds and comply with the CWA and nonpoint source pollution requirements;
- Protection of wetlands and other sensitive areas to ensure no net loss or alterations — as directed under the CWA; and
- Complete inventories of soils, flora and fauna must be monitored to determine trends so that use and management activities may be planned and implemented to ensure the sustainment and best use of natural resources.

In general, carrying out national land use and conservation policies is required on all Federal lands to the extent practicable and without affecting the assigned mission. These policies are incorporated in AR 200-3; guidelines for a land management plan are also provided.

Land management is an important use of appropriated funds. Also, pursuant to Title 10, USC, 2667(d) revenues from the agricultural and outlease program are available for use in an installation's Natural Resources Management Program.

The Army's Program

Objectives...

- Avoid or minimize adverse mission impacts by integrating with the capability of the land to support mission activities;
- Actively cooperate with local, state and Federal organizations in carrying out national land use and conservation policies; and
- Develop and implement the necessary programs and plans to maintain and improve environmental quality, aesthetic values and ecological relationships.

Commanders should...

- Establish optimum staffing of professionally trained personnel;
- Seek supplementary aid from appropriate natural resources agencies (Federal, state and local) for technical assistance;
- Develop cooperative agreements with appropriate natural resources agencies;
- Determine the most environmentally acceptable land use as dictated by such factors as soil, water, vegetation, climate and topography;
- Avoid those land uses determined to have a detrimental effect on the environment;
- Ensure that outleased lands are available to the maximum extent practicable and prepare reports of availability for outleasing;
- Periodically inspect outleased lands to ensure compliance with maintenance and conservation requirements;
- Apply the multiple use concept whenever possible; and
- Implement the ITAM Program.

References

AR 200-3, "Natural Resources — Land, Forest and Wildlife Management," February 1995.

AR 405-80, "Granting Use of Real Estate," February 1989.

DOD Directive 4700.1, "Natural Resources Management Program," January 24, 1989.

Lead-Based Paint

What Is It?

Lead-based paint, is the most serious environmental threat to young children today, is of great concern to the Army. Lead paint was first introduced into the United States in the early 1800's and remained widely used throughout the 1940's, before declining in the 1950's.

The most immediate hazard from lead paint is found in structures with peeling lead paint or excessive levels of lead dust from deteriorating paint. Windows are often a hazard because the friction of opening and closing the window generates large amounts of dust. Also, if renovations are not performed correctly, lead dust can be spread throughout the structure.

Current Regulations

Lead-based paint is an issue for the Army because of its concern about how to properly disposed of the waste/debris (such as paint chips and painted building components) from the demolition of the numerous WWII-era structures on Army installations. Title IV of the Toxic Substance Control Act, Lead Exposure Reduction, in 1992 (P.L. 102-550) specifically waived sovereign immunity and required Federal facilities to comply with State and local lead-based paint regulations. Under the Resource Conservation and Recovery Act, installations are required to characterize the lead-based paint waste and then dispose of it by an approved method. The Occupational Safety and Health Administration regulations (29 CFR 1910 and 29 CFR 1926) establish standards for protecting workers occupationally exposed to lead. Often, states will have regulations that are more stringent than the Federal standards and installations are required to comply with these more restrictive state standards.

The Army's Program

Objectives...

- Minimize environmental release and occupational and incidental exposure.
- Handle and dispose of lead-based paint in compliance with regulations.
- Develop and maintain an inventory of all lead-based paint in Army structures (particularly family housing and schools where young

children can be exposed) and determine the potential for human exposure.

- In areas known to have lead-based paint, implement a program to minimize exposure until abatement is complete.

Commander's should...

- Determine if structures designated for demolition contain lead-based paint.
- Dispose of the lead-based paint waste/debris from demolition and abatement projects in an approved method.
- Operate according to permits issued by the state.

References

Public Law 102-550, Housing and Community Development Act of 1992, 28 Oct 1992: Title X, Residential Lead-Based Paint Hazard Reduction Act of 1992 (42 USC 4851).

29 CFR 35, Subtitle A (4-1-92 edition), Subpart E, Elimination of Lead-Based Paint Hazards in Federally Owned Properties Prior to Sale for Residential Habitation.

29 CFR 1910 Part 1025, Lead.

29 CFR Part 1926.62, Lead Exposure in Construction: Interim Final Rule. May 4, 1993.

Interim Final Report, U.S. Army Environmental Hygiene Agency, subject: Lead-Based Paint Contaminated Debris Waste Characterization Study No. 37-26-JK44-92, May 1992-May 1993.

Memorandum, Office of the Secretary of Defense, 24 November 1992, subject: Lead-Based Paint – Risk Assessment, Associated Health Risk to Children, and Control of Hazards in DoD Housing and Related Structures.

Memorandum, Office of the Assistant Secretary, 28 April 1993, subject: Lead-Based Paint Policy Guidance.

Memorandum, Assistant Chief of Staff for Installation Management, DAIM-FDF-B, 5 November 1993, subject: Policy Guidance – Lead-Based Paint and Asbestos in Army Properties Affected by Base Realignment and Closure.

Ozone-Depleting Substances

What Are They?

Ozone-depleting substances (ODS) are halogenated (chlorine and bromine-containing) compounds that destroy the Earth's ozone layer. Chlorofluorocarbons (CFCs) and halons are the two largest categories of ODS. CFCs, introduced in the 1930's, are mainly used by the Army as refrigerants and solvents. Their application as aerosol propellants was banned in the United States in 1978. Halons have been used in the United States since the early 1970's as firefighting agents, both in military and civilian applications. CFCs and halons are highly stable compounds that remain intact when they are released into the air. They break apart only when they reach the stratosphere, releasing chlorine and/or bromine, which destroy the Earth's ozone layer that protects life from damaging ultraviolet radiation.

Current Regulations

Concerns about this environmental hazard resulted in the Montreal Protocol, an international agreement to protect the ozone layer. It was ratified by the Senate and became effective on January 1, 1989. The Montreal Protocol places progressively tightening restrictions on the annual consumption (i.e., production plus imports) of ozone-depleting substances. The amendments of 1990 added carbon tetrachloride and methyl chloroform (1,1,1, trichloroethane) to the list of affected ozone depleting substances and accelerated the production phaseout schedule for most CFCs and halons to the year 2000. The provisions of the Protocol form the basis of Title VI of the Clean Air Act Amendments of 1990.

Recent scientific studies have shown that the current phaseout schedule may not be sufficient to prevent significant deterioration of the ozone layer. The President has announced his intention to move up the production phaseout date for ODS to the end of 1995.

DOD Directive 6050.9 requires the military services to establish procedures to eliminate unnecessary release of ozone-depleting substances into the atmosphere. In March 1989, the Army established the CFCs and Halons Working Committee, whose function is to perform the technical work and coordination required to implement this DOD Directive. This working committee receives guidance from the General Officers Steering Committee (GOSC) on ODS.

The Army's implementing document for DOD Directive 6050.9 is the Headquarters, Department of the Army (HQDA) Letter referenced below. The letter mandates certain activities that promote Army objectives.

The Army's Program

Objectives...

- Continue to mandate control measures such as annual usage reporting;
- Allow procurement only in absence of suitable alternatives;
- Phase out over the next few years in accordance with DOD goals through research, replacement, and minimization;
- Modify training, maintenance and testing procedures;
- Promote recycling and other conservation practices;
- Revise military specifications where necessary to minimize use;
- Prohibit disposal of ozone-depleting substances by direct release to the atmosphere (i.e., venting during maintenance);
- Further the attainment of conservation technology and chemical substitutes through Research and Development (R&D) efforts.

Commanders should...

- Modify existing operational procedures, as necessary, to eliminate or minimize emissions of ozone-depleting substances;
- Ensure that recycling of ozone-depleting substances and other conservation practices are employed to the maximum extent possible; and
- Comply with the acquisition reporting requirements.

References

DOD Directive 6050.9, Under Secretary of Defense for Acquisition [USD(A)], 13 Feb 89 - (Currently being revised), subject: Chlorofluorocarbons (CFCs) and Halons.

HQDA Letter 200-92-1, (31 July 1992), subject: Eliminating or Minimizing Atmospheric Emissions of Ozone-Depleting Substances.

AR 420-54, Air Conditioning and Refrigeration, 4 Dec 90.

AR 420-90, Fire Protection, 25 Sep 92.

USACE Engineering Technical Letter 1110-3-426, 23 Mar 90, subject: Engineering and Design — Halon Fire Extinguishing Agents and Protection of Electronic Equipment Installations. Prohibits installation of halon fire-fighting systems in new buildings.

USACE Architectural and Engineering Instructions (AEI), Design Criteria, CEMP-EA, 15 Oct 90. Requires the use of lowest ozone-depleting (ODP) refrigerants in new equipment. Accompanying Guide Specifications.

USACE Technical Note 420-54-01, 26 June 91, subject: Use of Chlorofluorocarbons in Air-Conditioning and Refrigeration Systems.

USACE Guidance Memorandum, May 1991, subject: CFC/Halon Alternatives

USACE Guidance Memorandum, March 1992, subject: Chlorofluorocarbon (CFC) Refrigerants in Operation and Maintenance. Provides technical guidance on how to recover, recycle, and reclaim CFC refrigerants.

USACE Study, April 1992, subject: Retrofit and Replacement Costs for Air Conditioners and Refrigeration Equipment.

USACE Study, December 1992, subject: U.S. Military Halon Bank Management Study.

ASHRAE Guideline 3-1990, Reducing Emission of Fully Halogenated Chlorofluorocarbon (CFC) Refrigerants in Refrigeration and Air-Conditioning Equipment and Applications.

TM 5-670, Refrigeration, Air-Conditioning, Mechanical Ventilation, and Evaporative Cooling, Feb 62.

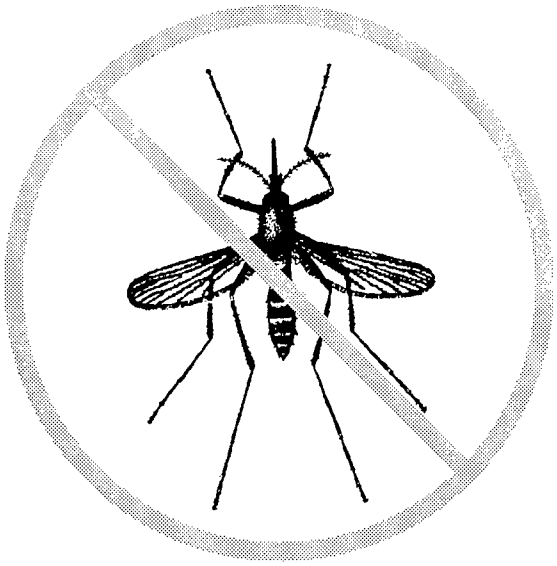
Federal regulations related to protection of stratospheric ozone are contained in Title 40 CFR, part 82. Also, some new reporting requirements are detailed in Volume 55 Federal Register 35628, 31 August 1990.

Several guidance documents are available from EPA, including:
"How Industry is Reducing Dependence on Ozone-Depleting Chemicals," June 1988.

Pesticides and Pest Management

What Are They?

A pest is any organism (i.e., insect, rodent, worm, fungus, weed or micro-organism) that adversely affects the well-being of personnel and animals; attacks real property, supplies, equipment, or vegetation; or is otherwise considered undesirable.



Pesticides are substances, or mixtures of substances (to include biological agents), that are used to destroy, repel or otherwise prevent damage by pests. These substances are commonly named after the specific group of pest they are designed to control, hence the names insecticide, herbicide, fungicide, rodenticide, plant growth regulator, etc.

Pesticides are often toxic chemicals that must be stored and handled with care. Unlike many toxic chemicals, however, pesticides must be released into the environment to be effective, thereby making some degree of environmental exposure an unavoidable consequence of use. Depending upon their properties and patterns of use specific pesticides may contact or accumulate in the atmosphere, soil, surface and ground water, and in untargeted plants and animals. Thus, it is important to use pesticides only in ways that prevent or minimize risks of unwanted environmental exposures from occurring.

Pesticides are also unique among potentially toxic chemicals in that their usefulness can be reduced or eliminated entirely by resistance of targeted pests to them. This often happens when pesticides are applied inappropriately, and, if undetected, will result both in reduced effectiveness and in unwanted environmental exposures.

Modern strategies of pest control have abandoned wholesale use of pesticides in favor of more sophisticated approaches in which pesticides are but one of several tools which are used to eliminate or reduce damage by pests with a minimum of risk to the environment. This approach, commonly known as Integrated Pest Management, or IPM, demands full use of information about the biology of a pest and its environment as well as the roles of engineering, cultural, genetic and other disciplines for overall control. Department of Defense policy is committed to IPM at its facilities and installations as the best approach to control pests and to reduce resistance, while demonstrating the leadership needed to meet Presidential guidelines for Federal Agencies to greatly reduce environmental risks from toxic chemicals by the end of the decade.

Current Regulations

EPA regulates pesticides through its Office of Pesticide Programs (OPP). Two statutes are administered in this Program:

- The Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) of 1972 established the registration procedures for pesticide products; and
- The Federal Food, Drug and Cosmetic Act (FFDCA) which governs pesticide residue levels in food or feed crops.

Under FIFRA, EPA is responsible for registering new pesticides to ensure that, when used according to label directions, they will not present unreasonable risks to human health or the environment. EPA may classify a product for restricted use if its toxicity warrants special handling. Restricted pesticides may be used only by or under the supervision of certified applicators who are trained to handle toxic chemicals. DoD policy goes even further than this by requiring that virtually all commercial-grade pesticides are handled only by certified applicators at its facilities.

The Army's Program

Objectives...

- Develop and administer safe and effective pest management programs at each installation by using IPM techniques to help minimize resistance and the risks of environmental damage from pesticide applications;
- Protect real estate investments from damage by pests;
- Control potential disease vectors;
- Prevent damage to natural resources by pests;
- Maintain and improve operating personnel competence and skill through periodic training and testing; and
- Prevent medical or economic pests from being introduced or spread into or throughout the United States.

Commanders should...

- Designate a professionally trained pest management coordinator to ensure that all installation pest management regulatory and reporting requirements are being met;
- Prepare and submit an installation pest management plan for MACOM approval that addresses all organizations and activities, to include outlease and outgrant programs, which require applications of pesticides at your facility;
- See that your pest management program is staffed by a sufficient number of DoD-certified pesticide applicators, supervisors and contract quality assurance evaluators to ensure that pesticides are being handled and applied in accordance with government health and environmental requirements.

- Support IPM to help limit risks of pesticide resistance and environmental contamination from excessive applications of pesticides at your installation;
- Ensure that pest management activities are referenced in other installation environmental documents (e.g. EA/EIS's, Spill Contingency Control Plans, Endangered Species Protection Plans, etc.) to foster better coordination as part of the installation master planning process

References

AR 200-1, "Environmental Protection and Enhancement," Chapter 5, April 1990.

AR 200-2, "Environmental Effects of Army Actions," December 1988.

DOD Directive 4150.7, "DoD Pest Management Program", October 1983.

AR 40-5, "Preventive Medicine," Chapter 10, August 1986.

AR 420-76, "Pest Management," June 1986.

Federal regulations concerning pesticides are contained in Title 40 CFR Parts 162, 165 and 171. In addition the DoD Armed Forces Pest Management Board and Army Agencies have published useful guidance in several documents, among which are the following:

- AFPMB Technical Information Memorandum 15, Pesticides Spill Prevention and Management, June 1992.
- HQDA Technical Bulletin No. MED 561, Occupational and Environmental Health Pest Surveillance, June 1992.

Pollution Prevention

What Is It?

Pollution Prevention is an extension of the Army's Hazardous Waste Minimization (HAZMIN) program. Army activities such as manufacturing, testing, maintenance, R&D, and medical surveillance all produce a variety of pollutants. Pollution prevention means any reasonable mechanism that successfully avoids, prevents, or reduces pollutant discharges or emissions other than by the traditional method of treating pollution at the discharge end of a pipe or stack. Reducing the use of hazardous materials and reducing wastes at their source is the preferred method of pollution prevention.

Why Prevent Pollution?

- Hazardous waste disposal, water discharges, and air emissions have all been associated with significant environmental contamination. Cleaning up past contamination has already cost DOD several billion dollars.
- The cost of complying with current waste disposal regulations, wastewater treatment standards, and air pollutant emission limits continues to rise.
- Current environmental regulations and Army policy make pollution prevention an integral part of their overall strategies for protecting health and the environment.

Current Regulations

- RCRA requires generators of hazardous waste to certify that a program is in place to reduce the volume or toxicity of hazardous waste to the extent proven economically feasible. This requirement is the basis for HAZMIN. Generators must report steps taken to minimize waste generation in their biennial reports to the EPA.
- The new Clean Air Act Amendments impose a strict schedule for controlling emissions of 189 hazardous air pollutants. The Amendments encourage voluntary source reduction by providing credit to facilities that reduce emissions ahead of schedule.

- The Emergency Planning and Community Right to Know Act, Section 313, requires yearly reporting by chemical for a list of more than 300 (1994) then more than 600 (1995 on) toxic chemicals, once the reporting threshold is met and pounds per year released to air, water, or land transferred for treatment to wastewater treatment or off-site facilities. Other new Executive Orders require solid waste reduction, recycling and energy conservation.
- Federal agencies to reduce pollutants by 50 percent between 1994 and 1999. The baseline for this reduction is the 1994 TRI rollup of all of the Federal agencys' facilities. Any federal facility subject to any EPCRA reporting (not just EPCRA Section 313 TRI reporting) must write a facility Pollution Prevention plan by 31 December 95.
- The Pollution Prevention Act of 1990 promotes source reduction as the highest form of preventing pollution. This act required Toxic Release Inventory reports to include source reduction and recycling measures for each reported chemical.

The Pollution Prevention Hierarchy

The EPA has ranked pollution prevention methods according to general environmental and economic benefit:

- **Source Reduction.** This term includes substituting materials and changing processes to avoid the use of hazardous substances.
- **In-Process Recycling.** If hazardous materials must be used, they should be reused in the same processes as much as possible.
- **Off-site Recycling.** Materials no longer useful in a process should be reclaimed or used to recover energy.

Materials and residues that cannot be recycled must be treated and disposed of to prevent risk to health and contamination of the environment.

The Army's Program

Objectives...

- *Strategic Goal:* Adopt and implement integrated management approaches, procedures, and operations in all Army mission areas to minimize all environmental contamination and pollution.
- *Waste Reduction:* The Army is working to reduce the release and disposal of toxic chemicals by 50 percent between 1994 and 1999. In addition, the Army seeks to reduce solid waste generation, improve recycling, and conserve energy.
- *Hazardous Material Management:* Army logisticians are improving methods for tracking hazardous material inventories. Through better inventory control and material handling, the Army can prevent spills and needless disposal of expired material stocks.
- *Prevention in Acquisition:* The Army, with DOD, is undertaking a review of MILSPECs and other hazardous materials. Further, acquisition

managers are looking for pollution prevention opportunities during all phases of weapons systems' life cycles.

- *Pollution Prevention Ethic:* The prevention ethic means accomplishing every Army mission with the environment in mind. Through strong Command support, training, and public awareness, preventing pollution will become the way the Army does business.

Commanders should...

- Establish a Pollution Prevention program; instill the Pollution Prevention ethic across all organizations and echelons of command.
- Survey their facilities to determine the sources, types, and amounts of hazardous waste generated, air pollutants released, solid waste disposed, and waste water discharged.
- Determine areas where source reduction can be implemented by material substitution process modification or reengineering to reduce hazardous materials before recycling, treatment or disposal.
- Ensure your Pollution Prevention plan is written by 1996.

References

AR 200-1, "Environmental Protection and Enhancement," Chapters 5 and 6, April 1990.

HQDA Letter 200, 94-1, "Army Pollution Prevention Program," requires all Army installations to write Pollution Prevention plans. This letter expires 19 January 1996.

Title 40 CFR Part 262.41 and the Appendix thereto details HAZMIN requirements under RCRA.

Title III, Clean Air Act Amendments of 1990 (PL 101-549) details the source reduction requirements for hazardous air pollutants.

EPA/625/7-88/003, "Waste Minimization Opportunity Assessment Manual," July 1988.

USAEHA, TG No. 178, "A Commander's Guide to Hazardous Waste Minimization at Army Health Care Facilities," February 1990.

Executive Order 12856, Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements.

Executive Order 12873, Federal Acquisition, Recycling, and Waste Prevention.

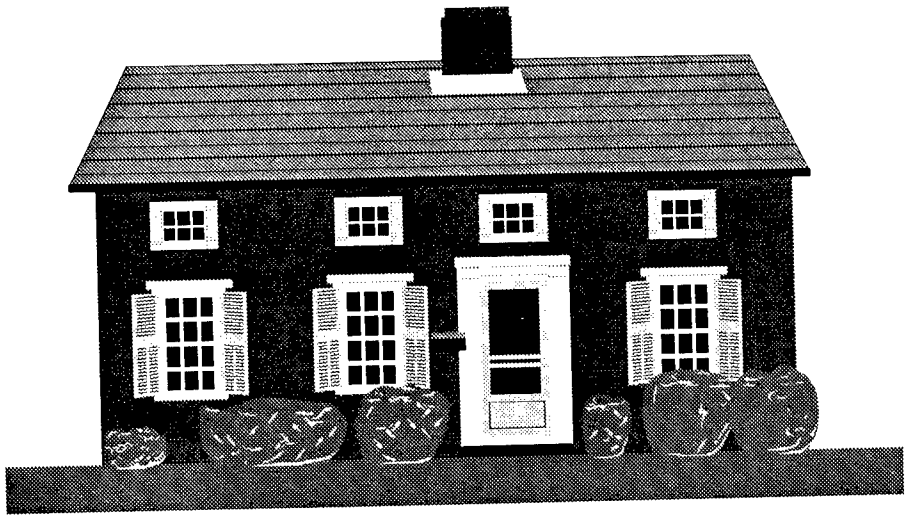
Executive Order 12902, Energy Efficiency and Water Conservation at Federal Facilities.

Radon

What Is It?

Radon is a colorless and odorless radioactive gas released by the natural degradation of uranium. Radon can be found in high concentrations in soils and rocks containing uranium, granite, shale and phosphate. The only known health effect associated with exposure to elevated levels of radon is an increased risk of developing lung cancer. The risk of developing lung cancer from exposure to radon depends upon the concentration and the duration of exposure. Current evidence also suggests that smokers are at higher risk from radon exposures than nonsmokers.

Radon naturally occurs in outdoor air in concentrations of 1 picocurie per liter(pCi/L), with typical average concentrations of about 0.5 pCi/L. Although these levels are not considered to be of concern, radon can concentrate inside enclosed spaces such as homes or buildings to levels exceeding several hundred Pci/L. Radon gas can enter typical buildings through dirt floors, cracks in concrete floors and walls, floor drains, sumps, joints, and tiny cracks or pores in hollow-block walls.



Current Regulations

There are currently no Federal regulations relating to radon in the home or workplace. However, EPA believes that indoor radon exposure levels greater than 200 Pci/L, would require immediate mitigation actions. Additionally, based on currently available information, EPA believes that indoor radon concentrations can be reduced to 4 Pci/L in most homes. The Army's action level is 4 Pci/L. It is notable that individual states are passing laws requiring certifications and licenses for those in the business of testing for radon and/or performing mitigation activities.

The Army Program

Objectives...

- Implement the Army Radon Program;
- Implement the Army Radon Assessment Plan, designed to measure by priority the radon levels in schools, day care centers, hospitals, housing, offices and other structures;
- Identify all structures with indoor radon levels greater than 4 pCi/L and implement mitigation actions to reduce levels to 4pCi/L or less;
- Implement the Army Radon Mitigation Plan with a specified set of deadlines for completion of mitigation based on radon levels;

Commanders should...

- Incorporate radon mitigation techniques in new construction;
- Develop a database to maintain radon assessment and mitigation data.
- Budget for the measurement of radon in structures and mitigation of elevated levels; and
- Submit to the MACOM, at the end of each fiscal year, a report summarizing progress in the Army Radon Program.

References

AR 200-1, "Environmental Protection and Enhancement," Chapter 11, April 1990.

USAEHA TG No. 164, "The Department of the Army Radon Program," 19 September 1989.

EPA has published several pamphlets on the subject of radon. The following materials are available from your Federal Facility Coordinator:

A Citizen's Guide to Radon, OPA-86-004, August 1992.

Radon Reduction Methods, OPA-87-010, September 1987.

USACPW Technical Guidance on Radon, December 1992.

The Inside Story - A Guide to Indoor Air Quality, EPA/400/1-88/004, September 1992.

Radon Reference Manual, EPA/520/1-87-20, September 1987.

Real Property Transaction and Base Closure

What Is It?

Transactions of Army real property include sale, leasing arrangements, temporary tenancy, grants, transfers and exchanges. Property transfers have gained significance in recent years for both private industry and governmental agencies at all levels. Numerous instances of unknowing acceptance of contaminated property have raised serious legal and liability issues. In this light, the Army recently revised the regulations governing real property transactions to institute requirements to prevent environmental contamination, minimize the potential for personal and Army liability, and ensure adequate environmental restoration if needed.

The environmental restoration portion of the Base Realignment and Closure Program (BRAC) was established to help identify, investigate, and remediate contamination on installations identified for sale under the auspices of the Base Closure and Realignment Commission Report of December 1988 and subsequent commissions, as authorized under the Base Closure Act of 1990. The process consists of the following environmental restoration phases:

- Environmental Baseline Survey — a study of the environmental conditions of Army-controlled properties, focusing on hazardous substances or other regulated hazards. Includes former Enhanced Preliminary Assessment and Community Environmental Response Facilitation Act (CERFA) requirements.
- Environmental Investigation — (remedial investigation/feasibility study (RI/FS), RCRA Facility Investigation (RFI), etc. — to determine the nature and extent of contamination at a site and to identify alternatives/recommend the best strategy for remediation or cleanup; and
- Remedial Action (RA) — to implement any remediation necessary prior to property transfer.

Current Regulations

Environmental responsibilities concerning real property transactions are described in AR 200-1, Chapter 12-5; AR 385-64, Chapter 12; AR 405-10 (acquisitions); AR 405-80 (outgrants); AR 405-90 (disposals); and in a memorandum from the Deputy Secretary of Defense, dated 9 September 93, regarding "Disposal of Real Property at Closing and Realigning Bases." The 42 U.S.C. 9620 (h) and Public Law 102-426, The Community Environmental Response Facilitation Act (CERFA) addresses requirements for reporting hazardous substance activity when selling or transferring federal real property. In addition, current DOD memorandums provide guidance for preparing appropriate documentation Environmental Baseline Survey (EBS0, Finding of Suitability to Transfer (FOST), Finding of Suitability to Lease (FOSL) which is more current that the policy described in AR 200-1.

These regulations set out the procedures for conducting and processing an EBS (replaces the Preliminary Assessment Survey described in AR 200-1 and subsequent FOST for sales divesting title, transfers of jurisdiction, and permits, or FOSL for outgrants with the exception of licenses and minor easements). The purpose of these requirements is to protect both parties involved in real property transactions and to ensure any contaminated property is adequately restored.

Base Closure policy for overseas bases is radically different that than of CONUS and is set by international treaty and the Secretary of Defense (see reference below).

The Army's Program

Objectives...

- Ensure all real property transactions document the environmental status at the time of the transaction;
- Minimize the liability of the Government (and individuals) in any real property transaction;
- Ensure adequate environmental restoration of any contaminated real property.

Commanders should...

- Ensure all real property transactions comply with 42 U.S.C. 9620 (h), Public Law 102-426 (CERFA), AR 200-1 (currently under revision), AR 405-80, and AR 405-90;
- Ensure compliance with NEPA and AR 200-2 in all real property transactions;
- Ensure an EBS and subsequent FOST/FOSL is conducted and processed for each real property transaction.

References

AR 200-1 and DA PAM 200-1, "Environmental Protection and Enhancement," Chapter 12-5, Real Property Transactions, (currently undergoing revision).

AR 200-2, "Environmental Effects of Army Actions," December 1988.

AR 385-64, "Ammunition and Explosives Safety Standards," Chapter 12, May 1988.

AR 405-10, "Acquisition of Real Property and Interests Therein," May 1970.

AR 405-80, "Granting Use of Real Estate," February 1979.

AR 405-90, "Disposal of Real Estate," May 1985.

42 U.S.C. 9620 (h), "Reporting Hazardous Substance Activity When Selling or Transferring Federal Real Property," April 1990.

Public Law 102-426, "The Community Environmental Response Facilitation Act (CERFA)," October 1992.

"BRAC Cleanup Plan (BCP) Guidebook", Department of Defense, Fall 1993.

Memorandum, Office of the Deputy Secretary of Defense, 9 Sep 93, subj: Disposal of Real Property at Closing and Realigning Bases.

Base Closure Act 1990.

Defense Authorization Amendments and Base Closure and Realignment Act, Public Law 100-526, October 1988.

Solid Waste Management

What Is It?

Non-hazardous solid waste, as defined and regulated under the RCRA, consists of many diverse types of wastes including municipal solid waste, construction wastes, some municipal sewage sludge, industrial and commercial "non-hazardous" waste, as well as some semi-solid and liquid wastes. Solid waste requiring special handling consists of such things as household hazardous wastes, incinerator ash, medical infectious waste, and oil and gas wastes.

EPA studies have revealed that more than 11 billion tons of solid waste are generated each year in the United States. Presently, there are about 227,000 disposal units receiving solid waste. These facilities include surface impoundments, municipal sewage sludge land application units, and landfills. Prior to landfilling, other processes or treatment practices are employed to reduce the volume requiring disposal. These include, in preferential order, source reduction, reuse, recycling, composting, incineration, or combustion in a waste-to-energy facility. Landfills have historically been the least expensive way to dispose of solid waste. However, when the solid waste disposal regulations promulgated by the EPA in October 1991 became effective in October 1993 (certain small, isolated landfills in arid states have been extended until October 1995), the cost of landfilling municipal solid waste began to increase and is expected to continue doing so.

Current Regulations

Non-hazardous solid waste is managed in accordance with Subtitle D of RCRA. In October 1991, the EPA promulgated regulations establishing criteria for municipal solid waste landfills. These regulations contain requirements for location restrictions, facility operation and design, ground water monitoring, corrective actions, and closure/post-closures. The EPA has delegated authority to states, meeting certain requirements, to implement this program. This is similar to the RCRA hazardous waste program and will result in increased costs for municipal solid waste management and disposal.

Currently, state and local governments have the basic responsibility for promulgating regulations related to the management of Subtitle D wastes.

For instance, many states require permits for solid waste landfills and composting operations. These governments are encouraged to promote increased use of product separation, source reduction, recycling, and composting to reduce the volume of solid waste requiring disposal through Subtitle D, and it is your responsibility, as commander, to take the necessary actions to comply. Immunity of military installations from state and local environmental regulations has been waived in many instances by the Federal Facilities Compliance Act and other laws.

Two recent executive orders also have solid and hazardous waste requirements that installations must comply with. E.O. 12856, "Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements," requires that you inform the public about the hazardous substances and toxic chemicals stored at your installation and that the 1994 levels of toxics be reduced 50 percent by 1999. E.O. 12873, "Federal Acquisition, Recycling, and Waste Reduction," addresses the solid waste cycle as a whole by requiring waste reduction targets, recycling goals, and an affirmative procurement program to purchase recycled and environmentally preferable products.

In this regard, Army installations must comply with Army Regulation 420-47, "Solid and Hazardous Waste Management." This regulation, which is under revision, addresses collection, storage, processing and disposal of solid wastes and hazardous wastes. The revision will also specify the responsibilities of the commander and other installation personnel in the planning and administration of the installation Integrated Solid Waste Management (ISWM) Program. As part of an ISWM program, an installation may establish a recycling program, which in addition to reducing the volume of solid waste requiring disposal, may provide income or cost savings to the installation. One hundred percent of the proceeds from sales of recyclable materials will be returned to installations with Qualifying Recycling Programs. After the program operating costs have been recovered, the remaining proceeds are available to finance projects or pollution abatement, energy conservation and occupational safety and health activities, as well as morale, welfare and recreation programs.

Hazardous waste disposal will be handled in accordance with AR 200-1, which is also under revision. Hazardous and medical-infectious wastes are the responsibility of the generator to properly dispose of. As installation commander, you must ensure that programs are in-place and functioning for their safe collection and storage; timely, proper and documented disposal.

The Army's Program

Objectives...

- Reduce, reuse and recycle solid waste to the greatest extent possible;
- Pursue the use of joint/regional solid waste management programs and facilities with federal and non-federal agencies;
- Privatize solid waste management facilities or contract for waste disposal services, including recycling, and

- For installations that do not have established recycling programs, cooperate to the extent practicable in recycling programs conducted by the civilian community.

Commanders should...

- Establish and execute an Integrated Solid Waste Management Program in compliance with regulations and policy;
- Establish programs to reduce waste production and increase reuse, recycling and composting; and
- Monitor and control the amount of waste needing incineration or landfilling, and ensure that only appropriate wastes go to the landfill.

References

AR 200-1, "Environmental Protection and Enhancement," Chapter 6, April 1990.

AR 420-47, "Solid and Hazardous Waste Management," December 1984.

Executive Order 12873.

Executive Order 12856.

Solid Waste Management Regulations are provided in Title 40 CFR Parts 240 through 258.

Threatened and Endangered Species Management

What Are They?

The Endangered Species Act of 1973 (ESA) protects fish, wildlife, and plants that have been determined to be threatened or endangered by the Secretary of Interior or Secretary of Commerce. The determination is based solely on the best scientific data available. The ESA defines "endangered species" as those species which are in danger of extinction throughout all or a significant portion of their range. "Threatened species" are those that are likely to become endangered within the foreseeable future. The list of endangered and threatened species (listed species) is published in the Federal Register.

The ESA requires federal agencies to carry out programs for the conservation of listed species. The ESA defines "conservation"" as the use of all methods and procedures which are necessary to bring endangered species or threatened species to the point at which the measures provided pursuant to the ESA are no longer required.

The ESA also requires that federal agencies ensure that actions authorized, funded or carried out by such agencies are not likely to jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of habitat designated critical. The Army must formally consult with the National Marine Fisheries (NMFS) (for most marine species) and the U.S. Fish and Wildlife Service (USFWS) (all other species) prior to taking any action that may affect, adversely or beneficially, a listed species or designated critical habitat. Joint USFWS and NMFS regulations describe consultation procedures.

The ESA prohibits anyone from "taking" a listed fish and wildlife species unless permitted by the ESA. "Take" is broadly defined by the ESA to include most activities that harass or harm listed fish and wildlife species. Additionally, the ESA makes it unlawful to remove or to maliciously damage or destroy any listed plant in areas under federal jurisdiction.

Natural resource mangers also need to recognize state listed threatened and endangered species and should consider impacts on species and associated critical habitat in all land management plans and actions.

Department of the Army personnel who violate the provisions of the ESA or implementing regulations are subject to both civil and criminal penalties. The law imposes penalties for both the knowing failure to take required action and the commission of prohibited acts.

The Army's Program

Objectives...

- Develop and implement programs for protecting and preserving state and federal threatened and endangered species and their critical habitat.

Commanders should...

- Plan land utilization to avoid adverse effects on threatened and endangered species.
- Conduct installation-wide surveys to identify and document the location of listed species, species that are candidates for listing, and their habitats.
- Perform biological assessments for major construction projects and other major activities, such as military training, to assess the effects on listed species and their habitats.
- Work closely and cooperatively with the USFWS and NMFS in planning installation activities and initiate formal consultation for activities that may affect listed species or critical habitats.
- Prepare management plans for listed species, species proposed for listing, and critical habitats (ES management plans) and ensure that adequate funds and personnel are provided to implement the plans.
- Monitor installation compliance with ES management plans and progress towards conservation goals through internal and external assessments and annual review by the Environmental Quality Control Committee.

References

AR 200-1, "Environmental Protection and Enhancement," Chapter 3, April 1990.

Joint USFWS and NMFS regulations implementing the Endangered Species Act are contained in Title 50 CFR Part 402. The Lists of Endangered and Threatened Wildlife and Plants are contained in Title 50 CFR Parts 17.11 and 17.12, respectively; the designated Critical Habitats are listed in Title 50 CFR Parts 17.95 and 17.96.

AR 200-3, "Natural Resources - Land, Forest and Wildlife Management," Chapter 11, Threatened/Endangered Species, 1995.

Underground Storage Tanks

What Are They?

USTs have been widely used throughout the nation over the past 50+ years to store petroleum products, chemicals and wastes. Most of these tanks contain petroleum products (gasoline or oil).

During the past decade, many tanks leaked and caused groundwater contamination. The EPA has estimated that there are hundreds of thousands of USTs nationwide and that as many as 25 percent may be leaking. Leak testing studies at Army installations over the past few years have also shown about 25 percent of Army USTs to be leaking.

The nation draws about half of its drinking water from groundwater sources. Leaking underground storage tanks have contaminated many drinking water sources around the country. Cleanup from a leaking UST can cost $100,000 or more.

USTs don't have to be totally underground to be regulated. Generally, regulated USTs are those which have 10 percent or more of their volume underground (including the piping) and exceed 110 gallons capacity.

Current Regulations

In 1984 Congress amended RCRA to add Subtitle I which established a new comprehensive regulatory program for USTs containing "regulated substances." The EPA regulates this program under Title 40 CFR Part 280. In addition, many states have promulgated UST regulations.

Specific requirements vary somewhat depending on the contents of tanks. But generally, tanks installed after December 1988 must meet specific installation standards and requirements for corrosion protection, spill/overfill prevention and leak detection. Tanks installed prior to December 1988 must meet these major requirements: (1) corrosion protection; (2) spill/overfill prevention; and (3) leak detection.

The regulations establish strict timetables for retrofitting existing USTs depending on the age, the contents and the construction.

Subtitle C of RCRA establishes the requirements for the management of hazardous wastes. The requirements for tank systems storing hazardous wastes are detailed in 40 CFR Parts 264, Subpart J and 265, Subpart J. The regulations for these tank systems apply to both below ground and above ground units. It should be noted, when installing new tank systems, a tank system assessment is required. This applies to those systems at treatment, storage and disposal facilities (TSDF) and those systems used for waste accumulation under Title 40 CFR 262.34.

The Army's Program

Objectives...

- Inventory all tanks worldwide annually;
- Identify all leaking tanks and take corrective action to minimize environmental impacts; and
- Comply with Federal and state requirements.

Commanders should...

- Notify the appropriate state or local agency and HQDA of existing or new USTs;
- Leak test all USTs and initiate corrective action for all leaking tanks;
- Remove all abandoned tanks; and
- Install new tanks that meet standards.

References

Federal Regulations for storage of hazardous waste in tanks are addressed in Title 40 CFR Parts 264 and 265.

Federal UST Regulations for storage of regulated substances are addressed in Title 40 CFR Parts 280.

Current Army policy and guidance documents for procedures concerning inventory control practices are: AR 710-2, Supply Policy Below the Wholesale Level; DA PAM 710-2-1, Using Unit Supply Manual; and DA PAM 710-2-2, Supply Support Activity Supply Manual.

Other useful publications such as FM 10-69, Petroleum Supply Point Equipment and Operations; FM 10-18, Petroleum Terminal and Pipeline Operations; and API Guidance Manual 1621, Bulk Liquid Stock Control at Retail Outlets, provide detailed instructions on inventory control procedures.

TM 5-678, Petroleum, Oils and Lubricants: Repairs and Utilities, outlines general maintenance requirements.

AR 200-1, "Environmental Protection and Enhancement," Chapter 5, April 1990.

Musts for USTs — A User's Guide to Regulations for Underground Storage Tank Systems., EPA Office of Underground Storage Tanks, August 1988.

December 1990 Compliance Guide for Existing Underground Storage Tank Systems. USATHAMA, 6 June 1990.

Wastewater Management

What Is It?

Because water is one of the most significant natural resources used in both the home and the work place, preservation of this resource is of great importance. A typical installation generates wastewater from sanitary uses, industrial processes, and stormwater runoff. Adequate treatment of these waste streams ensures that the receiving water's quality is maintained.

Current Regulations

The Federal Water Pollution Control Act, as amended by the Clean Water Act (CWA) of 1977 (further amendments through 1987), has the objective of restoring and maintaining the chemical, physical, and biological integrity of the nation's navigable waters.

The Act incorporates provisions for regulating both domestic and industrial wastewaters. From these provisions, the EPA has established standards for direct and indirect wastewater discharges, stormwater runoff, and sewage sludge use and disposal practices. The primary tool for wastewater compliance is through the National Pollutant Discharge Elimination System (NPDES) permits.

Pollutant discharges from any point source into waters of the United States require a NPDES permit. This applies to facilities which treat industrial and/or domestic wastewaters. NPDES permits typically specify concentration limits of various pollutants which can be discharged from the permitted facility. For certain industries (known as categorical industries), the EPA has established effluent limitations or categorical standards which must be met. If a facility does not qualify as a categorical industry, permit limits are developed by the regulatory authority based on potential adverse impacts of pollutants to the receiving water. NPDES permits also require that the effluent be routinely sampled and analyzed and results reported to permitting authorities.

Biomonitoring is a common requirement that is incorporated in the NPDES permits to identify any toxicity problems. Permits may also require pollution prevention or best management practices to further reduce the amount of toxics entering the treatment facility and thus, the receiving water.

An important component of the NPDES permitting process is the pretreatment program which sets standards for the control of effluent from indirect discharges — those industrial sources of pollution which discharge efflu-

ent through Publicly or Federally Owned Treatment Works. There are three types of pretreatment standards that an industrial user must comply with — categorical standards, specific prohibitions, and local limits. Categorical pretreatment standards have been established by EPA and apply to all industrial users. Specific prohibitions are general standards established by EPA and apply to all industrial users. States and local municipalities may set additional or "local" limits on indirect discharges to protect the wastewater treatment facility.

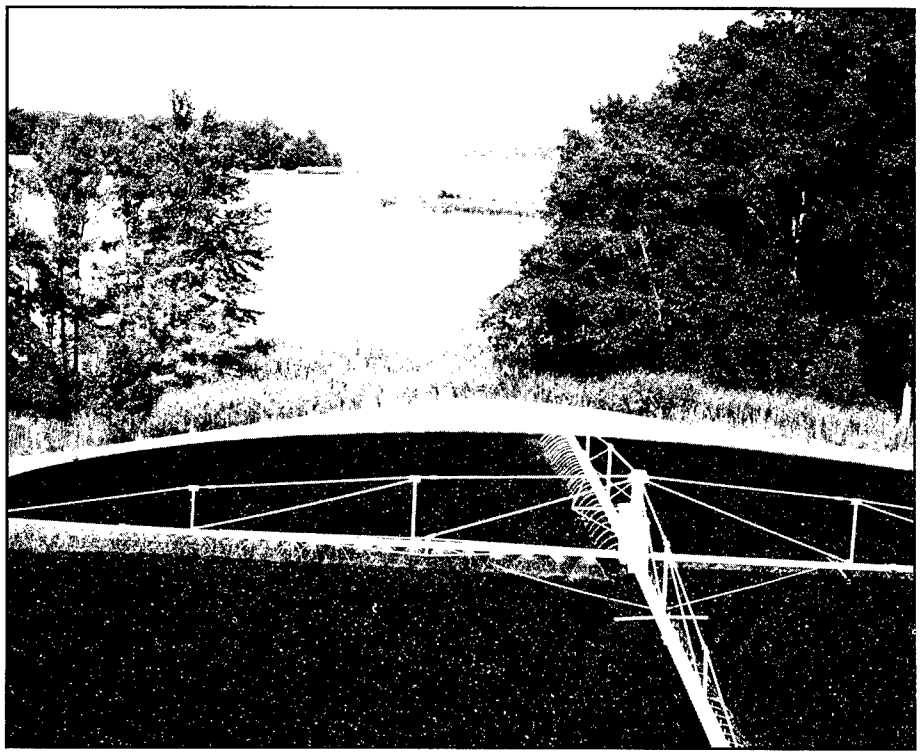
NPDES permits are required for storm water runoff from certain industrial and construction activities. These permits require the regulated activity to develop and implement a Storm Water Pollution Prevention Plan. The Plan describes materials management measures that reduce or eliminate storm water pollution. Common regulated activities at Army installations include motor pools, Defense Reutilization and Marketing Office yards, and landfills.

The CWA also regulates sewage sludges generated from domestic wastewater treatment plants. These regulations address requirements for those sewage sludges that are applied to land, placed on a surface disposal site, or fired in a sewage sludge incinerator.

The Army's Program

Objectives...

- Control or eliminate sources of pollutants discharged to surface or ground waters though conventional or innovative treatment systems;
- Demonstrate leadership in attaining the national goal of zero discharge of water pollutants;



- Cooperate with regulatory authorities in forming and implementing water pollution control plans; and
- Control or eliminate runoff and erosion through sound vegetative and land management practices.

Commanders should...

- Develop and maintain wastewater monitoring programs to ensure compliance with NPDES permits and regulations;
- Obtain operating permits for treatment facilities;
- Notify the MACOM when new permits are received or new regulations are proposed or issued which will require modification of existing treatment facilities; and
- Submit copies of NOVs immediately to the MACOM.

References

AR 200-1, "Environmental Protection and Enhancement," Chapter 3, April 1990.

AR 420-46, "Water Supply and Wastewater," May 1992.

Regulations pertaining to the CWA are contained in Title 40 CFR Parts 122 through 140.

Wetlands

What Are They?

Wetlands is the collective term for marshes, swamps, bogs, and similar areas that are located between open water and dry land. Wetlands are a valuable natural resource that help improve water quality, reduce flood and storm damage, provide important fish and wildlife habitat, and support hunting and fishing activities. In general, two broad categories of wetlands are recognized: coastal wetlands and inland wetlands. Coastal wetlands are found in areas of varying salinities and are represented by unvegetated mud flats, sand flats, marshes, estuaries, and mangrove swamps. Inland wetlands are common on floodplains along rivers and streams, in isolated depressions surrounded by dry land, and along the margins of lakes and ponds.

Current Regulations

All Federal land management agencies are responsible for protecting wetland resources. The major Federal wetlands regulations are jointly administered by the USACE and EPA. The CWA established a permit program to regulate the discharge of dredge and fill material into waters of the United States, including most wetlands. The FWS and the National Marine Fisheries Service have important advisory roles in the permit review process. Section 404 of the Clean Water Act authorizes the Secretary of the Army, acting through the Chief of Engineers, to issue permits for the discharge of dredged or fill material into waters of the United States. The term "waters of the United States" has a broad meaning and includes wetlands, coastal and inland waters, lakes, rivers, streams and prairie potholes. The terms dredged or fill material includes return water from dredged material disposed on the upland and generally any fill material (e.g., rock, sand, dirt) used to fill in wetland areas during the construction of roadways, erosion protection, and site development.

The Corps issues section 404 permits under various forms of authorization. These include individual permits and general permits.

Individual permits require that a formal application be completed and submitted to the Corps and the appropriate state agency. Once a complete application is received by the Corps, the formal review process begins. The Corps issues a public notice, evaluates the impacts of the project and all comments received, and negotiates necessary modifications to the project, if required. A permit decision document is then prepared and forwarded to the district or division engineer for signature.

General permits refer to regional permits and nationwide permits. Regional general permits are issued by district or division engineers on a regional basis for those projects identified as being similar in nature and causing only minimal individual and cumulative environmental impacts. Nationwide permits are issued by the Chief of Engineers through publication in the Federal Register and are applicable throughout the nation. The nationwide permits are found in 33 CFR Part 330. Contact your local Corps district or division for a listing of the regional general permits.

References

AR 200-1, "Environmental Protection and Enhancement," Chapter 3, April 1990.

AR 200-3, "Natural Resources - Land, Forest and Wildlife Management," February, 1995.

EPA regulations pertaining to wetlands are contained in Title 40 CFR Part 230. Subpart E, Section 230.41 outlines the potential impacts of dredge and fill material on special aquatic sites, specifically wetlands. The regulatory program for USACE is contained in Title 33 CFR Parts 320 through 330. Part 222.

Corps of Engineers Wetlands Delineation Manual (1987).

What Do These Environmental Terms Mean?

Acid Rain	Acidified precipitation resulting in acidification of lakes and destruction of forests; believed to be caused by emissions from vehicles and burning fossil fuels.
AAEMIS	Army Automated Environmental Management Information System. Still in the developmental stages, this system will link information systems throughout the Army to enable environmental managers at all organizational levels to access required information.
ACHP	Advisory Council on Historic Preservation
ACTS	Army Compliance Tracking System. Replaces the DEMIS Report. Provides quarterly summary information on the compliance status of each environmental program, tracks quantities of hazardous waste generated and tracks costs associated with environmental permit fees and fines.
Agricultural Outlease	Use of DOD lands under a lease to an agency, organization or person for growing crops or grazing animals.
AHERA	Asbestos Hazard Emergency Response Act (1986). Act requiring studies to determine the extent of danger to human health from asbestos in public and commercial buildings.
AIRFA	American Indian Religious Freedom Act of 1978
ALMC	U.S. Army Logistics Management College
AMC	U.S. Army Materiel Command
AR	Army Regulation
ARPA	Archeological Resources Preservation Act

Asbestos	A group of natural minerals that tend to separate into strong, heat-resistant fibers. Used as an insulator, it is a suspected carcinogen.
BAT	Best available technology
BMP	Best Management Practice; a "common sense" approach when dealing with a known process. It takes into account operating and process conditions by minimizing the impact on the environment and human health.
BRAC	Base Realignment and Closure
CAAA-90	The Clean Air Act Amendments of 1990. Legislation designed to prevent, control, and abate air pollution from stationary and mobile sources.
Carrying Capacity (Outdoor Recreation)	The maximum amount of recreation activity and number of participants that a land or water area can support in a manner compatible with the objectives of the Natural Resources Management Plan and without degrading existing natural resources.
Carrying Capacity (Wildlife)	The maximum density of wildlife that a particular area or habitat will support on a sustained basis without deterioration of the habitat.
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act (1980), regulating cleanup of hazardous waste sites. Also known as "Superfund." Amended by SARA of 1986.
CERL	U.S. Army Construction Engineering Laboratories
CFCs	Chlorofluorocarbons; a family of fully halogenated hydrocarbons containing fluorine and chlorine. These substances are environmentally harmful because they deplete the earth's stratospheric ozone layer.

CFR	Code of Federal Regulations
Chlorine	Chemical used in water purification for removal of bacteria.
CWA	Clean Water Act (1972-1987). This Act regulates discharge of wastewaters from industrial facilities and sewage treatment facilities such as publicly owned treatment works.
Coastal Waters	Generally, any waters subject to tidal influences.
COB	Command Operating Budget
Conservation	Wise use and management of natural resources to provide the best public benefits and continued productivity for present and future generations.
CONUS	Continental United States. From an environmental standpoint CONUS refers to any land over which the EPA has jurisdiction. This includes Alaska, Hawaii, Puerto Rico, Guam and the Virgin Islands.
Cooperative Plan	The component of the Natural Resources Management Plan that describes how fish and wildlife resources at an installation shall be managed. The Cooperative Plan is coordinated with the Fish and Wildlife Service and the appropriate state agency.
CPSC	Consumer Products Safety Commission. An agency regulating consumer goods.
Critical Habitat	A designated area declared essential for the survival of a protected species under authority of the Endangered Species Act.
CRMP	Cultural Resoure Management Plan
CRREL	U.S. Army Cold Regions Research Engineering Laboratory
Cyanide	A highly poisonous, carbon-nitrogen compound.

CX	Categorical Exclusion. An exemption to NEPA requirements for EAs and EISs. Projects that have been pre-determined to not require further NEPA documentation are listed in Chapter 4, Appendix A of AR 200-2.
Db	Decibel. Measure of loudness or intensity of sound.
DEH	Directorate of Engineering and Housing.
DERA	Defense Environmental Restoration Account. Account used to fund DOD environmental cleanup activities such as those performed under the IRP.
DERP	Defense Environmental Restoration Program. General program for environmental cleanup of DOD facilities.
DESR	Defense Environmental Status Report: RCS-1485. Has been changed to ACTS.
Dioxin	A highly toxic chlorinated compound often associated with certain herbicides and pesticides but also found in other items such as bleached paper products.
Discharge	Term describing any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of a substance.
Disposal	The discharge or placement of any solid waste or hazardous waste into or on any land or water.
DOD	Department of Defense
DOT	Department of Transportation
DRMO	Defense Reutilization and Marketing Office
DSN	Defense System Telecommunications Network
EA	Environmental Assessment. Required by NEPA; a study to determine if significant environmental impacts are expected from a proposed action.

ECA	Environmental Compliance Assessment. Involves a multi-media review of an installations environmental program to identify possible compliance deficiencies.
ECAP	Environmental Compliance Achievement Program. An umbrella program that integrates the five basic steps required to achieve and maintain environmental compliance: training; planning and programming; resourcing; assessing; and correcting deficiencies. It does not include DERP.
ECAS	Environmental Compliance Assessment System. This system identifies compliance deficiencies and suggests corrective actions to fix the deficiencies.
EIS	Environmental Impact Statement. A report required by NEPA that describes the environmental consequences of proposed actions.
Emergency Planning and Community Right-to-Know Act (1986)	Provides local governments with information about possible chemical hazards in the community. Also known as SARA Title III.
Emission Standard	Permissible limit of air emissions established by Federal, state, and local authorities.
Endangered Species Act (1973)	Legislation that protects fish, wildlife and plants that have been determined to be threatened or endangered.
Endangered Species	Those species which are in danger of extinction throughout all or a significant portion of their range.
EPA	U.S. Environmental Protection Agency.
Federal Facility Docket	Method developed under SARA to identify and gather information on Federal facilities which manage hazardous wastes or may be contaminated with hazardous substances.
FR	Federal Register. A daily Federal publication that formally documents proposed and promulgated (final) regulations.

FFDCA	Federal Food, Drug, and Cosmetic Act (1938). This Act governs pesticide residue levels in food or feed crops.
FIFRA	Federal Insecticide, Fungicide and Rodenticide Act (1972). This Act regulates the licensing or registration of pesticides.
Floodplain	Flat area adjacent to a river or stream that is subject to flooding.
FNSI or FONSI	Finding of No Significant Impact. A FNSI is prepared if the findings of an Environmental Assessment indicate that no significant environmental or socioeconomic impacts are expected from the proposed project, and therefore, an Environmental Impact Statement is not required. The FNSI is distributed for public review and comment.
Friable Asbestos	Asbestos which can be crumbled in the hand; creates a health hazard due to release of microscopic fibers.
FWS	U.S. Fish and Wildlife Service
FY	Fiscal Year
Game Species	Fish and wildlife that may be harvested in accordance with Federal and state laws.
GOCO	Government-owned, Contractor-operated
GOSC	General Officers Steering Committee
Groundwater	Water contained in underground reserves or aquifers.
Halons	A family of fully halogenated hydrocarbons containing bromines. These substances are environmentally harmful because they deplete the earth's stratospheric ozone layer.
HAP	Hazardous Air Pollutant
Hazardous Materials	Chemicals that have been determined by the Secretary of Transportation to present risks to safety, health, and property during transportation.

Hazardous Substance	An element, compound, or mixture that when discharged in any quantity, onto land or water, poses an imminent and substantial threat to public health and welfare.
Hazardous Waste	Waste that because of its quantity, concentration, or characteristics may pose a substantial hazard to human health or the environment.
HAZCOMM	Hazard Communication. The responsibilities of managers concerning possible hazards in the workplace and notification of hazards and necessary precautions to their employees.
HAZMIN	Hazardous Waste Minimization.
HCF	Health Care Facility
HQDA	Headquarters, Department of the Army
HSWA	Hazardous and Solid Waste Amendments (1984). Amendments to RCRA which include regulations on waste minimization, land disposal of hazardous wastes, and underground storage tanks.
HWMP	Hazardous Waste Management Plan
IAG	Inter-agency Agreement
I&M	Inspection and Maintenance
ICUZ	Installation Compatible Use Zone. Program identifying the compatibility of on-post and off-post land uses with noise sources.
Incineration	Disposal of waste materials through controlled burning.
IOSC	Installation On-scene Coordinator
IPM	Integrated Pest Management
IR	Installation Restoration
IRA	Interim Response Action
IRDMIS	Installation Restoration Data Management Information System

IRP	Installation Restoration Program
IRT	Installation Response Team
ISCP	Installation Spill Contingency Plan. Document detailing resources and procedures for cleanup of spills of oil and hazardous substances.
ITAM	Integrated Training Area Management
Leachate	Liquid material produced when surface water or groundwater contacts solid waste; typically generated at landfills.
LEPC	Local Emergency Planning Committee. Established in local municipalities to prepare a plan for responding to releases of hazardous substances and informing citizens of those major facilities managing hazardous substances in the area.
MACOM	Major Army Command
MACT	Maximum Available Control Technology
MCL	Maximum Contaminant Level. The allowable level of certain organic and inorganic constituents in drinking water.
MED	Medical
MOA	Memorandum of Agreement
Monitoring	The sampling or measurement of a contaminant by analytical means.
MSDS	Material Safety Data Sheet. Information sheets describing the potential hazards, chemical or physical properties, and health effects of a substance.
Multiple Use	The use of natural resources for the best combination of purposes to meet the needs of the military and the public.
NAAQS	National Ambient Air Quality Standards. Ambient air standards set by EPA for designated pollutants; such standards are to be achieved through SIPs.

NAGPRA	Native American Graves Protection and Repatriation Act of 1990.
National Primary Drinking Water Regulations	These establish the maximum contaminant levels for certain chemicals in drinking water to protect public health.
National Secondary Drinking Water Regulations	Drinking water guidelines for contaminants which affect the aesthetic qualities of water.
National Response Center	The Washington, D.C. headquarters (run by the U.S. Coast Guard) that coordinates activities relative to pollution emergencies.
NCP	National Contingency Plan. Regulations which implement CERCLA provisions for responding to releases of oil and hazardous substances including cleanup of NPL sites.
NEPA	National Environmental Policy Act (1969). NEPA requires all Federal agencies to take into account environmental and socioeconomic effects of proposed major actions through preparation of a Record of Environmental Consideration, Environmental Assessment or Environmental Impact Statement.
NESHAP	National Emission Standards for Hazardous Air Pollutants. Allowable emissions of certain hazardous pollutants into ambient air.
NHPA	National Historic Preservation Act
Nitrates	Essential soil nutrients, yet can also be pollutants.
NOI	Notice of Intent. A NOI is a public notice published in the Federal Register that an Environmental Impact Statement will be prepared and considered. The NOI briefly describes the proposed action and alternatives and describes the proposed scoping process (e.g., when and where the public meetings will be held).
Noise Control Act (1972)	Regulates noise emissions from commercial products such as transportation and construction equipment.

Nonhazardous Solid Waste	Generally, solid wastes which pose no significant threat to human health or the environment. Examples are household trash and office waste.
NOV	Notice of Violation. Formal written document provided to an installation by a regulatory agency as a result of environmental noncompliance.
NO_x	Nitrogen Oxide
NPDES	National Pollutant Discharge Elimination System. Program which regulates wastewater discharges to surface waters.
NPL	National Priorities List. The prioritized list of sites to be remediated under CERCLA.
NSPS	New Source Performance Standard. Technology-based emission standards promulgated under the CAA.
O&M	Operation and Maintenance
OCONUS	Outside the Continental United States. From an environmental standpoint refers to activities on land that are not in the jurisdiction of the EPA (i.e., Europe, Korea, Japan).
ODS	Ozone Depleting Substances
ODEP	Office of the Director of Environmental Programs.
OMB	Office of Management and Budget
On-Scene Coordinator	Federal official in charge of removal efforts at hazardous substance discharge sites.
OPP	Office of Pesticide Programs, a division of EPA.

OSHA	Occupational Safety and Health Administration. Federal agency responsible for regulating worker safety. It establishes guidelines and training requirements for workers at hazardous waste sites and in operations using hazardous materials.
PAO	Public Affairs Office(r)
PA/SI	Preliminary Assessment/Site Inspection. First phase of the IRP, designed to identify potential sites with hazardous waste contamination.
PAS	Preliminary Assessment Screening. Formerly known as EBS.
PCBs	Polychlorinated Biphenyls. Toxic, halogenated organic compounds not easily degraded in the environment.
pCi/L	Picocurie per liter. Unit of measurement for radioactive materials in air; used for measurement of radon concentrations in buildings.
Pesticide	Any product that kills or controls pests.
pH	A measure of a liquid's acid/base properties.
POM	Program Operating Memorandum
POTW	Publicly Owned Treatment Work. Type of sewage treatment facility. Army treatment facilities are not considered to be POTWs.
PMP	Pest Management Plan
Primary Standards	Standards related to the protection of public health.
PSD	Prevention of Significant Deterioration. CAA program designed to ensure air quality does not deteriorate in areas presently in compliance with NAAQS.
Public Health or Welfare	All factors affecting human health and the natural environment.
PVNTMED	Preventive Medicine Activity

RA	Remedial Action. Third phase of cleanup of a hazardous waste site under the IRP.
R&D	Research and development.
Radioactive Material	Any material that spontaneously emits ionizing radiation.
Radionuclide	A radioactive nucleus of a compound or element.
Radon	A colorless, odorless, radioactive by-product from the natural degradation of uranium.
RAP	Remedial Action Plan. Strategy for correcting a site or operation which is not in compliance with regulatory requirements.
RCRA	Resource Conservation and Recovery Act (1976). RCRA establishes guidelines and standards for hazardous waste generation, transportation, treatment, storage, and disposal. Amended by HSWA.
REC	Record of Environmental Consideration.
RCS	Report Control Symbol
Recycling	The process by which recovered materials are transformed into new or usable products.
Regional Response Center	The Federal regional site that controls pollution emergency response activities.
Remediation	Cleanup of a toxic or hazardous waste site.
RFRA	Religious Freedom Restoration Act
RI/FS	Remedial Investigation/Feasibility Study. Second phase of the IRP where the nature and extent of contamination of a hazardous waste site are determined and cleanup strategies are analyzed.
ROD	Record of Decision. Official EPA document detailing the strategy for cleanup of a hazardous waste site under the IRP.

SARA	Superfund Amendments and Reauthorization Act (1986). This Act establishes standards for cleanup activities and also stipulates the conditions for off-site disposal of wastes.
SDWA	Safe Drinking Water Act (1974). This Act sets drinking water standards for any pollutants that may have an adverse effect on human health or negatively affect the aesthetic quality of drinking water.
SHPO	State Historic Preservation Officer
SWMU	Solid Waste Management Unit. Any discernible waste management unit at a RCRA facility from which hazardous constituents might migrate, irrespective of whether the unit was intended for the management of solid and/or solid waste.
Secondary Standards	Standards not directly related to human health. They are related to aesthetics, smell and beauty.
SIP	State Implementation Plan. Developed under the CAA to delineate methods to achieve the NAAQS.
Solidification	A process of stabilizing waste materials to prevent migration of contaminants.
Solvent	A liquid capable of dissolving solids or other liquids.
SOFA	Status of Forces Agreement
SPCCP	Spill Prevention, Control and Countermeasures Plan. Document that inventories oil and hazardous substance storage and provides procedures used to prevent spills and releases of these products.
Sulfate	Naturally occurring inorganic constituent found in soils and groundwater.
Surface Water	Water contained in rivers, streams, etc.
TB	Technical Bulletin

TG	Technical Guide
TM	Technical Manual
1383 Report	Eight-year environmental master plan developed by the installation to document the status of existing environmental projects and identify funding requirements for future projects. Part of the OMB A-106 process.
Threatened Species	Those species likely to become endangered within the foreseeable future throughout all or a significant portion of their range.
Toxic Pollutant	Pollutants which, after discharge and upon exposure, will cause adverse health effects.
TSCA	Toxic Substances Control Act of 1976. Regulates PCBs, CFCs, asbestos; requires testing of chemical substances entering the environment and regulating releases where necessary.
TSD	Treatment, Storage, Disposal. Hazardous waste operations requiring permits under RCRA.
TSDF	Treatment, Storage, Disposal Facility. A facility involved in hazardous waste TSD operations.
TWA	Time Weighted Average
USACE	U.S. Army Corps of Engineers
USACHPPM	U.S. Army Center for Health Promotion and Preventive Medicine
USACPW	U.S. Army Center for Public Works
USAEC	U.S. Army Environmental Center
USASC	U.S. Army Safety Center
USATCES	U.S. Army Technical Center for Explosives Safety
USC	United States Code
USD(A)	Under Secretary of Defense for Acquisition
UST	Underground Storage Tank. Below- or in-ground tank, storing oil or hazardous substances, regulated under RCRA.

VOC	Volatile Organic Compound
WES	U.S. Army Waterways Experiment Station
Wetlands	Collective term for marshes, swamps and similar areas that develop between open water and dry land.
WQS	Water Quality Standard. Water quality goals of a water body as developed under the CWA.
Yellow Book	EPA document titled Federal Facilities Compliance Strategy.

Notes

My Environmental Management Team Members:

Environmental Coordinator: _____

Phone: _____

Legal Advisor: _____

Phone: _____

Public Affairs Officer: _____

Phone: _____

Preventive Medicine Officer: _____

Phone: _____

Land Manager: _____

Phone: _____

Natural and Cultural Resources Manager: _____

Phone: _____

Safety Officer: _____

Phone: _____

Director of Logistics: _____

Phone: _____

Director of Public Works: _____

Phone: _____

Pest Management Coordinator: _____

Phone: _____

My EPA Federal Facilities Coordinator:

Name: _____

Phone: _____

My State Environmental Agency Representative:

Name: _____

Phone: _____

My Support Agency Representatives:

Office of the Director of Environmental Programs

Name: _____

Phone: _____

U.S. Army Center for Health Promotion and Preventive Medicine

Name: _____

Phone: _____

U.S. Army Center for Public Works

Name: _____

Phone: _____

U.S. Army Environmental Center

Name: _____

Phone: _____

U.S. Fish and Wildlife Regional Office

Name: _____

Phone: _____

State Natural Resources Office

Name: _____

Phone: _____

U.S. Army Corps of Engineer District

Name: _____

Phone: _____

Members of My Technical Review Committee

Name: _____

Phone: _____

Name: _____

Phone: _____

Name: _____

Phone: _____

My Reference Notes:

AR 200-1: General Environmental Programs _____

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AR 200-2: Nationai Environmental Policy Act _____

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AR 200-3: Natural Resources - Land, Forest and Wildlife Management

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Ar 210-20: Installation Master Planning _____

AR 405-10: Real Estate _____

AR 415-10/415-15: Military Construction _____

AR 420-40: Historical/Cultural Resources _____

AR 420-46: Water Supply and Wastewater _____

AR 420-47: Solid Waste Management _____

AR 420-49: Fuel Storage, Distribution and Dispensation _____

AR 420-76: Pest Management _____